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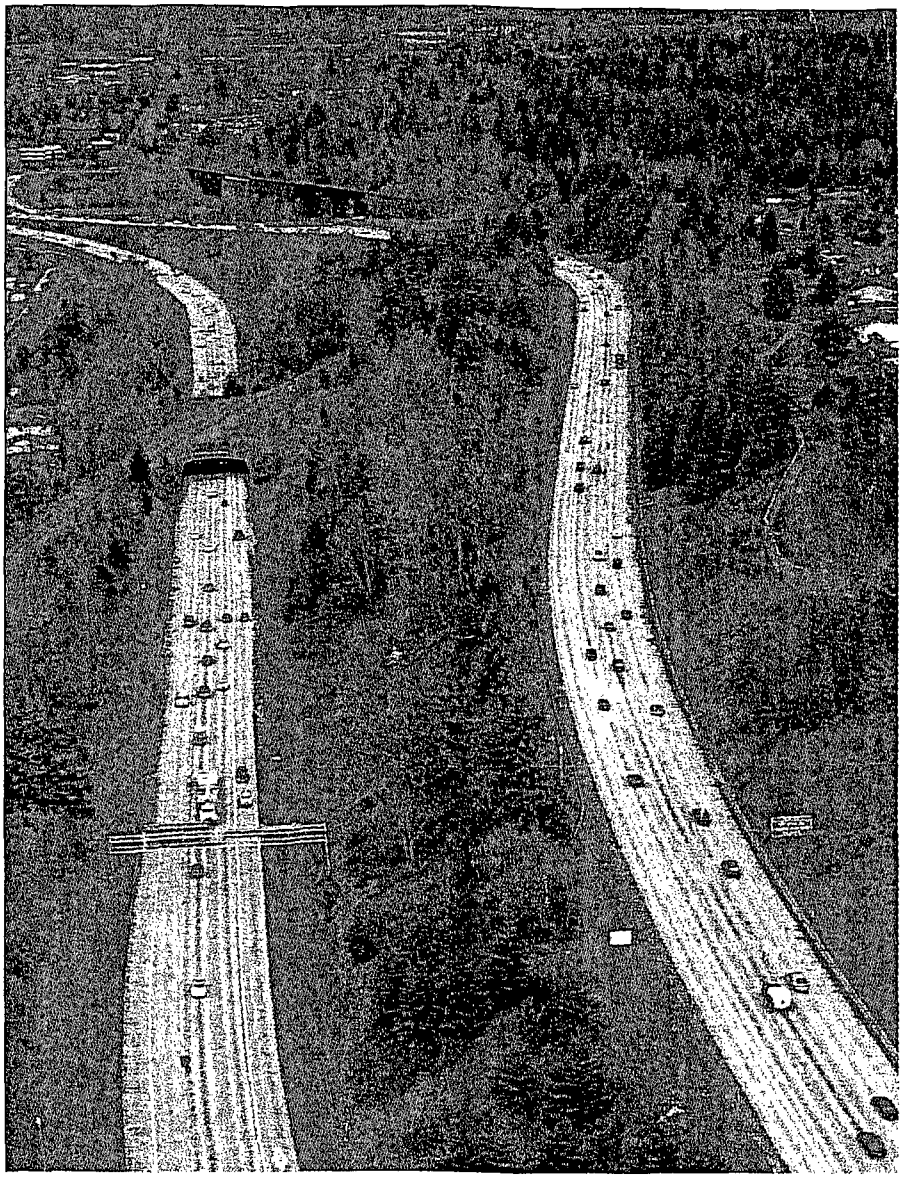
I-405 Bellevue Nickel Improvement Project
I-90 to Southeast 8th Street

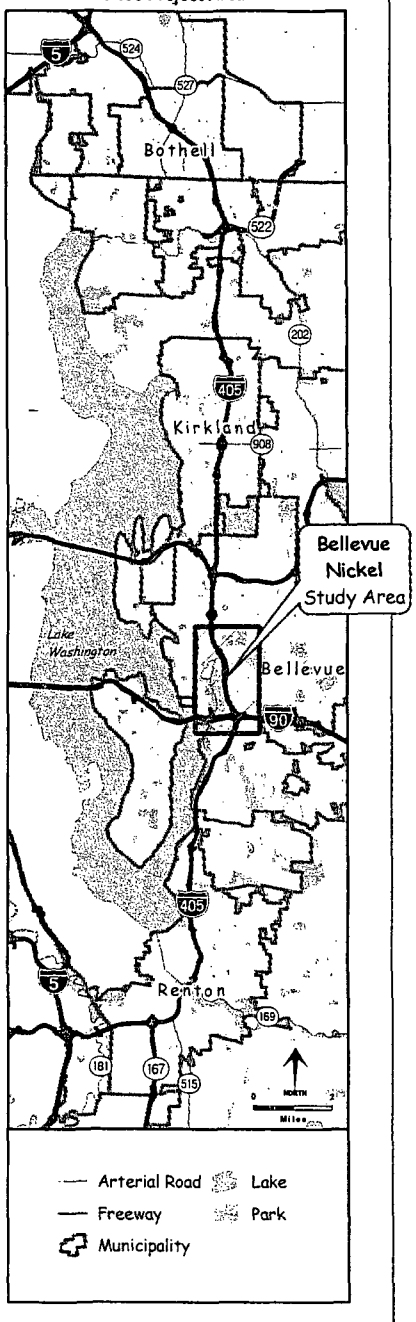
INTERSTATE 405 Corridor Program
Congestion Relief & Bus Rapid Transit Projects

ENVIRONMENTAL ASSESSMENT

January 2006



I-405 Project Area



Washington State Department of Transportation

USEPA SF
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U.S. Department of Transportation
Federal Highway Administration

I-405 BELLEVUE NICKEL IMPROVEMENT PROJECT, SE 8TH TO I-90

King County, Washington

Environmental Assessment

Submitted pursuant to Section 42 U.S.C 4332 (2) (c) and 23 C.F.R. Part 771

By the U.S. Department of Transportation, Federal Highway Administration, Washington Division, and the Washington State Department of Transportation

1/24/06
(Date of Approval)

Megan White, P.E.
Washington State Department of Transportation
Director, Environmental Services

1/24/06
(Date of Approval)

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Federal Highway Administration,
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In compliance with the National Environmental Policy Act (NEPA), this Environmental Assessment (EA) describes the environmental consequences of the addition of one northbound general-purpose lane on I-405 from just north of I-90 to SE 8th Street, the addition of one southbound general-purpose lane from SE 8th to I-90; and the construction of a new Wilburton Tunnel along southbound 405.

Copies of this document may be purchased for $40.00, which does not exceed the cost of reproduction. Comments must be postmarked or received by March 3, 2006 and should be returned to:

Allison Ray, I-405 Environmental Manager
Washington State Department of Transportation
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Suite 405
Bellevue, Washington 98004

or email rayalli@wsdot.wa.gov

A public hearing on this environmental assessment will be held on February 7, 2006 at the International Middle School, 445 128th Ave. SE, Bellevue, from 4 PM to 7 PM.

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Acronyms and Abbreviations

APE	area of potential effect
AQMP	Air Quality Maintenance Plan
ASTM	American Society for Testing and Materials
BMPs	best management practices
BNSF	Burlington Northern Santa Fe Railroad
Corps	U.S. Army Corps of Engineers
CSS	context sensitive solutions
CWA	Clean Water Act
dBA	A-weighted decibel
DDT	dichloro-diphenyl-trichloroethane
DEIS	Draft Environmental Impact Statement
DOT	Department of Transportation
EA	Environmental Assessment
Ecology	Washington State Department of Ecology
EIS	Environmental Impact Statement
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FONSI	finding of no significant impact

Acronyms and Abbreviations

FTA	Federal Transit Administration
GIS	Geographic Information Systems
HRM	WSDOT Highway Runoff Manual
I-405	Interstate 405
I-90	Interstate 90
LWCF	Land and Water Conservation Fund
LWD	large woody debris
Metro	King County Metro
MP	milepost
MTP	Metropolitan Transportation Plan
NAAQS	National Ambient Air Quality Standards
NAC	noise abatement criteria
NEPA	National Environmental Policy Act
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OHWM	ordinary high water mark
PHS	priority habitats and species
PSCAA	Puget Sound Clean Air Agency
PSE	Puget Sound Energy
PSRC	Puget Sound Regional Council
ROD	record of decision

Acronyms and Abbreviations

SEPA	Washington State Environmental Policy Act
SMA	Shoreline Management Act
Sound Transit	Central Puget Sound Regional Transit Authority
SPCC	Spill Prevention Control and Countermeasures Plan
TESC	Temporary Erosion and Sediment Control Plan
TIP	Transportation Improvement Plan
TSS	total suspended solids
USFWS	U.S. Fish and Wildlife Service
WAC	Washington Administrative Code
WDFW	Washington Department of Fish and Wildlife
WRIA	Washington State Water Resource Inventory Area
WSDOT	Washington State Department of Transportation

CHAPTER 1

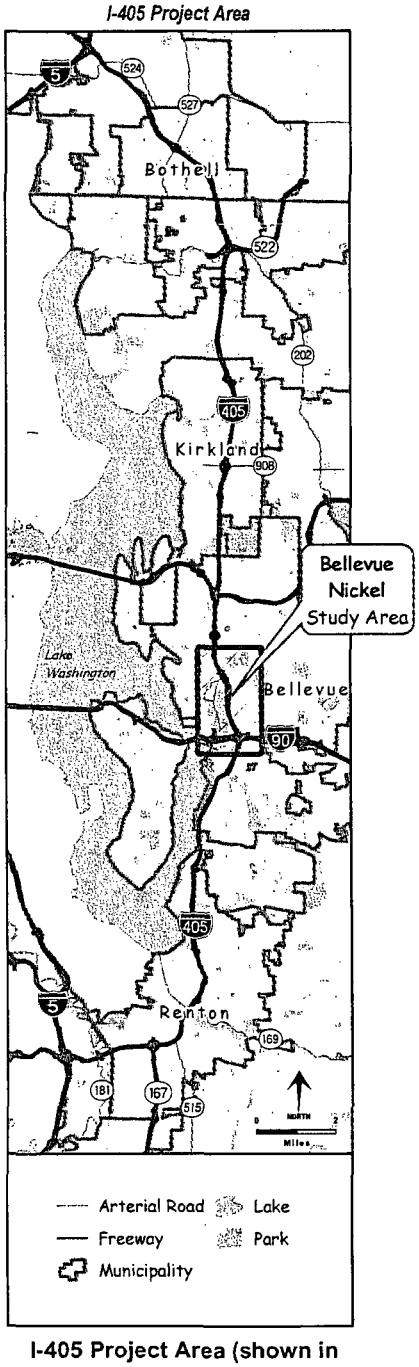
Summary

How will the Bellevue Nickel Improvement Project improve the quality of life for the people of Washington State?

The Bellevue Nickel Improvement Project will initially move Washington travelers through the currently congested Interstate 405 (I-405) corridor at speeds as much as 15 miles per hour faster than present conditions in morning and evening commutes. The project's expanded capacity will allow more people to use the roadway during congested periods. Its design features will also improve safety to enable Washington travelers to pass along this section of I-405 highway.

Reduced traffic congestion, improved travel speed, and safety improvements will be the most obvious improvements from the Bellevue Nickel Improvement Project for most people, but other benefits will also result from its design, construction, and operation:

- Through the mitigation process, we will build a larger, more functional wetland area at Kelsey Creek Park than the area affected by the project.
- We will create about 500 linear feet of new stream channel west of I-405 within the Washington State Department of Transportation (WSDOT) right of way.
- Water quality in the area will improve overall from new stormwater drainage facilities and upgrades to a number of existing drainage structures and systems.
- We will construct a new noise barrier along the eastern edge of I-405 near the Interstate 90 (I-90) interchange, which will shield nearby residents from highway noise.
- We will blend the new structures introduced by the project into the visual environment by adding surface treatments to retaining walls, widened bridges, freeway lighting, and signage. Community input guided the design of these elements.
- New jobs will flow into the Central Puget Sound area from project construction activities, and tax revenues will ripple



I-405 Project Area (shown in greater detail on page 1-3).

through to local jurisdictions such as the City of Bellevue and King County.

What part of I-405 will we improve and what will those improvements look like?

The Bellevue Nickel Improvement Project will extend along a 2-mile section of I-405 between I-90 and Southeast 8th Street in the City of Bellevue. Project limits appear on Exhibit 1-1.

We will add one new general-purpose lane in each direction along I-405. The project will also extend the existing outside southbound high-occupancy vehicle (HOV) lane north from I-90 to Southeast 8th Street. We will shift approximately 0.5 mile of the southbound roadway to the east into the freeway median and construct a new Wilburton Tunnel just east of the existing tunnel to carry the Burlington Northern Santa Fe Railroad (BNSF) over the realigned and expanded roadway. We will insure the uninterrupted flow of freight throughout the construction process.

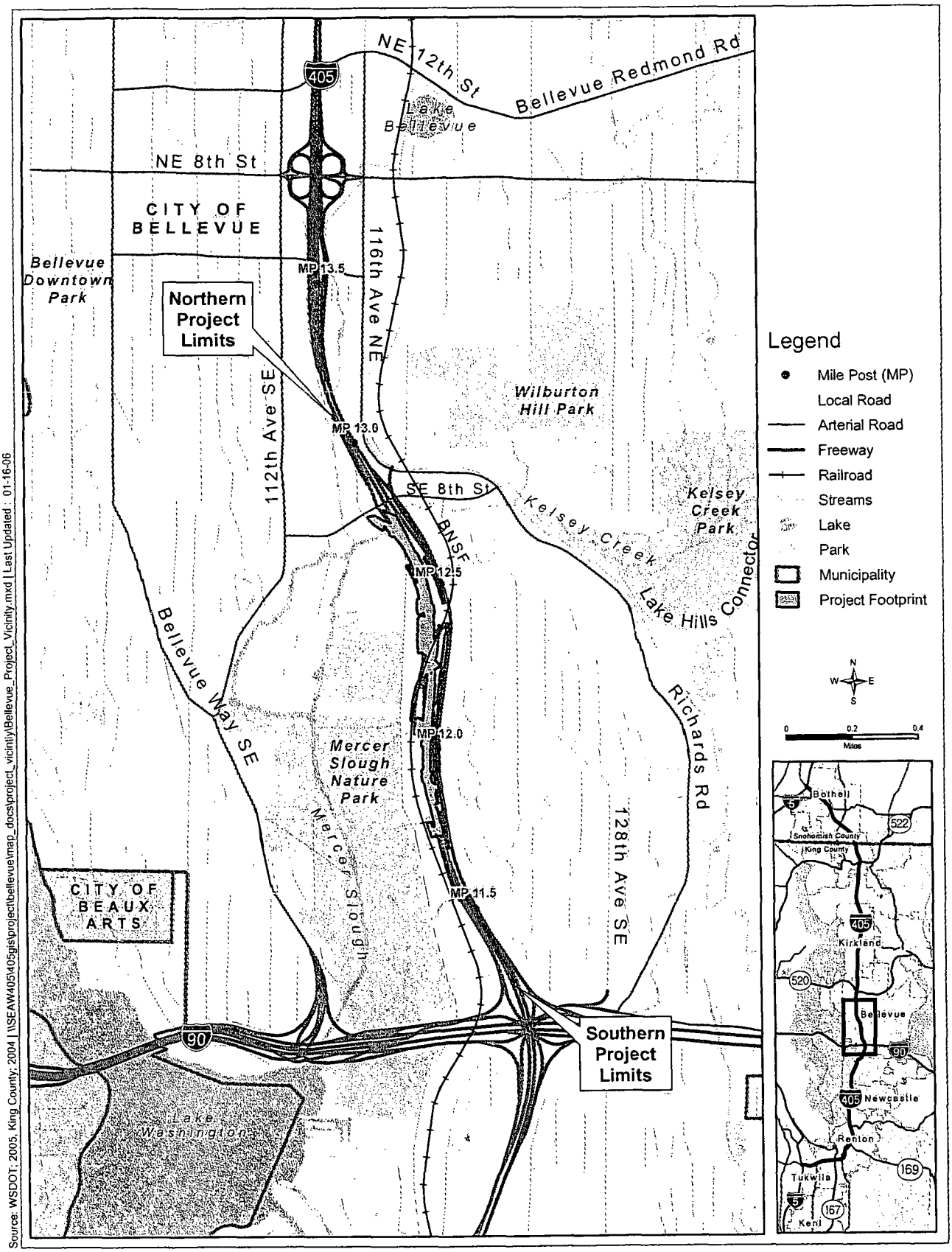
We will also add new stormwater drainage facilities and upgrade a number of existing drainage structures and systems. Other activities include construction of a new noise barrier and creation of new wetlands and streams in the study area to replace the loss of these resources from the project.

This will be one of the first projects completed under the I-405 Corridor Program. We plan to start construction on the Bellevue Nickel Improvement Project in spring 2007 and complete the project in fall 2009. We will construct the project under a design-build contract. A design-build contract provides the contractors flexibility to offer innovative and cost-effective alternatives to deliver the project while complying with all WSDOT design standards, performance measures, and activities to avoid or minimize effects to the environment will be met. The design-builder will determine specifics of the project such as construction phasing, how the construction will occur, and location of staging areas.

How will the project affect the environment?

We have mentioned above many of the positive environmental effects of the Bellevue Nickel Improvement Project. From the outset, our planners and engineers have considered the consequences of our work on the environment and have avoided and minimized negative effects wherever possible.

Exhibit 1-1. Project Vicinity Map



Source: WSDOT, 2005, King County, 2004 | \\SEAW405405gis\project\bellevue\map_docs\project_vicinity\Bellevue_Project_Vicinity.mxd | Last Updated : 01-16-06

We have studied 19 environmental aspects in great detail, and we have included complete copies of these formal studies in Appendices D through V on the CD that accompanies this report. For many of those elements, environmental effects were positive, and the project will have no effect on some of the others. In Chapter 5 we summarize what we learned from these studies and focus our discussion on areas with specific environmental effects.

For example, we have designed the project so that all major improvements will be constructed within the existing right of way. We have also shifted the roadway away from sensitive streams and wetlands wherever possible to minimize environmental effects.

When we consider all its aspects, we are confident that the Bellevue Nickel Improvement Project will improve mobility within the study area and the entire I-405 corridor.

Public participation in one of our workshops

Did the public have input on the project?

Since 2003, we have worked closely with the public, elected officials, local/state/federal agencies, and tribes. We will continue to meet with those groups as we move towards the construction phase of the project.

How can you get involved?

We will continue to provide the public with numerous opportunities to comment on the proposed project and interact with members of our environmental and design teams through such activities as:

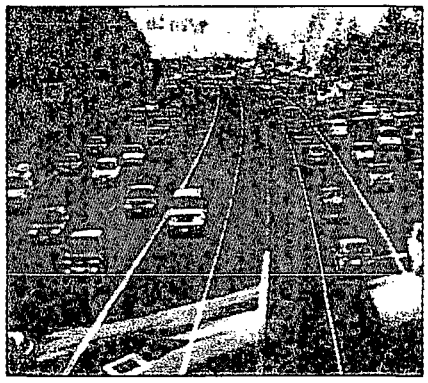
- Open houses
- Newsletters
- Presentations at neighborhood meetings

We will hold a formal public hearing on this document on February 7, 2006, from 4 to 7 p.m. at the International Middle School. The hearing provides an opportunity to gather formal comments on the project and to learn about the environmental aspects of the project.

CHAPTER 2

Why do we need this project?

Our region needs the Bellevue Nickel Improvement Project to improve traffic flow and freight mobility in ways that are safe and reliable. Users of I-405 in Bellevue know that traffic congestion in the area has worsened. The section of I-405 between I-90 and Southeast 8th Street is one of the busiest sections of the I-405 corridor. On an average morning, northbound commuters and other travelers experience heavy congestion for as long as 3 hours between 6:00 and 9:00 a.m. Likewise, on a typical afternoon, southbound commuters can expect to experience heavy traffic beginning as early as 3:00 p.m. and lasting for several hours into the evening.



Traffic on I-405

Our project is one component of the I-405 Master Plan, which addresses congestion along the entire I-405 corridor.

What is the I-405 Corridor Program and how does it relate to our project?

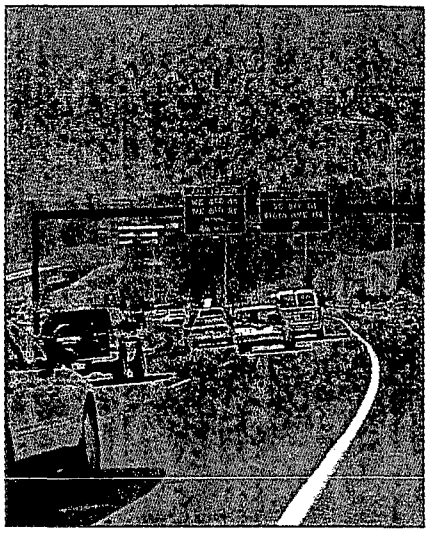
The I-405 Corridor Program is a comprehensive strategy to reduce congestion and improve mobility throughout the I-405 corridor. The I-405 corridor begins at the Interstate 5 (I-5) interchange in the City of Tukwila and extends northward 30 miles to the I-5 interchange in Lynnwood. The purpose of the I-405 Corridor Program is to:

- Ensure I-405 continues to function as an efficient transportation facility.
- Maintain or enhance livable communities within the I-405 corridor.
- Maintain or improve air quality, protect or enhance nearby streams and wetlands, and promote regional environmental values such as continued integrity of the natural environment.
- Support a vigorous regional and state economy by responding to existing and future travel needs.
- Accommodate planned regional growth.

As part of the overall I-405 Corridor Program, the Bellevue Nickel Improvement Project will improve access and mobility on

What is congestion?

Congestion occurs when vehicles on the freeway move at an average speed of 45 miles per hour or less and the flow of traffic is often stop and go.



I-405 at the northbound Southeast 8th Street exit

the section of roadway between I-90 and Southeast 8th Street in Bellevue.

What is the background of the Bellevue Nickel Improvement Project?

In 1998, WSDOT joined with the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), Central Puget Sound Regional Transit Authority (Sound Transit), King County, and local governments in an effort to reduce traffic congestion and improve mobility in the I-405 corridor.

In 2002, WSDOT published an environmental impact statement (EIS) that evaluated a broad range of transportation improvement alternatives for the entire I-405 corridor from Tukwila to Lynnwood. That process led to the selection of an alternative that has become the I-405 Corridor Program Master Plan. As part of this program, the Bellevue Nickel Improvement Project includes specific highway improvements for the section of I-405 between I-90 and Southeast 8th Street in Bellevue.

The Record of Decision (ROD) selected a project alternative that would widen I-405 by as many as two lanes in each direction throughout its 30-mile length. The design for the selected alternative includes areas separating general-purpose lanes from parallel HOV lanes (potentially used by future high-capacity transit).

What is a Record of Decision?

A record of decision is a public document that explains the environmental decisions that were made, and summarizes any mitigation measures included in the project.

In 2003, the Washington State legislature approved a statewide transportation-funding plan called the "nickel package." The nickel package provides funding for congestion relief projects in three critical traffic hotspots along the I-405 Corridor: Renton, Bellevue, and Kirkland. The Bellevue Nickel Improvement Project is one of several projects now moving forward as part of a phased implementation of the I-405 Corridor Program. Exhibit 1-1 shows the location of the Bellevue Nickel Improvement Project.

In keeping with the direction established in the Final EIS (FEIS) and ROD, we are preparing a National Environmental Policy Act (NEPA) environmental analysis (EA) that focuses on project-level effects of constructing and operating the Bellevue Nickel Improvement Project.

We based the EA on the analysis in the *I-405 Corridor Program Final EIS* and described any new or additional project changes, information, effects, or mitigation measures not identified and analyzed in the corridor-level FEIS. The project-level EA for

the Bellevue Nickel Improvement Project does not re-examine the corridor-level alternatives, effects, and mitigation measures presented in the corridor-level FEIS, or the decisions described in the ROD.

Does the region's transportation planning process include the Bellevue Nickel Improvement Project?

Improvements along I-405, including the Bellevue Nickel Improvement Project, are included in WSDOT's *Highway System Plan* (WSDOT 2004a). The *Highway System Plan* forecasts transportation needs for the next 20 years.

In addition, the Metropolitan Transportation Plan for the Central Puget Sound region, *Destination 2030* (Puget Sound Clean Air Agency 2001), defines the transportation action plan for the Puget Sound region over the next 30 years. The Bellevue Nickel Improvement Project appears in that plan as a key project needed to maintain and improve regional mobility. The project is also consistent with the transportation plans and policies of the City of Bellevue.

What happens if we do not build the Bellevue Nickel Improvement Project?

If we do not build the project, a projected increase in traffic would result in even higher levels of congestion. Travel speeds and vehicle throughput would fall.

In 2002, the section of I-405 between I-90 and Southeast 8th Street carried 210,000 vehicles per weekday (the total for both directions). By the year 2014, our transportation model predicts 218,000 vehicles will travel this stretch of roadway each day even in the absence of improvements. The additional daily traffic load of 8,000 vehicles would create additional delays and congestion.

Throughput

The number of vehicles carried on a facility. This is usually measured at a specific point on the roadway facility for a predetermined period of time.

CHAPTER 3

What are the alternatives and how did we develop them?

We evaluate two alternatives in this EA:

- A **Build Alternative**, which will add one new travel lane in each direction along a 2-mile section of I-405 between I-90 and Southeast 8th Street and extend the existing outside southbound HOV lane north to begin at Southeast 8th Street.
- **No Build Alternative**, which would include no major transportation improvements in the study area, but would include regular ongoing maintenance activities.

We narrowed our focus to these two alternatives after the I-405 Corridor EIS explored the range of alternatives for different methods of moving people and freight, as well as mitigation measures proposed for the corridor.

How did we advance from the I-405 Corridor Program to the Bellevue Nickel Improvement Project?

The I-405 Corridor Program environmental process, shown in the sidebar, describes the key steps we have taken to get where we are today.

During preparation of the I-405 Corridor Program Draft EIS (DEIS), decision-makers evaluated a variety of travel modes as they developed the alternatives to be analyzed in the EIS. These travel modes included single-passenger automobiles, motorcycles, carpools, buses, commuter trains, light-rail trains, bicycles, and walking.

The alternatives advanced for detailed study represented a range of improvements. Designers wanted to create capacity for a different mix of travel modes and technology that together could work as a complete and coordinated transportation system.

Once we had completed the I-405 Corridor Program and made it available for public and agency review, the project decision-makers selected a Preferred Alternative for analysis in the FEIS. The Preferred Alternative was a combination of highway, transit, local arterial, and other improvements at critical locations within the 30-mile-long I-405 corridor. We included the details of the

The I-405 Corridor Program Environmental Process

Discipline Reports
We prepared 19 technical reports to evaluate the potential effects of six project alternatives on the environment within the study area.

⇩

National/State Environmental Policy Act Draft EIS
The Draft EIS summarized the findings from the discipline reports and formally documented the potential environmental effects of the proposed action and other alternatives that are part of the I-405 Corridor Program.

⇩

Preferred Alternative
WSDOT selected the Preferred Alternative from among the alternatives analyzed in the Draft EIS. We included the details of the Preferred Alternative analysis, as well as the analysis of the other alternatives, in the FEIS.

⇩

Selected Alternative
FHWA and FTA agreed on a Selected Alternative and documented that decision in a formal ROD.

⇩

Record of Decision
The ROD identified the Selected Alternative and listed a wide range of mitigation commitments that we will implement to avoid or minimize adverse environmental effects.

⇩

Bellevue Nickel Improvement Project
The Bellevue Nickel Improvement Project is a collection of project-specific improvements from the Selected Alternative that address urgent transportation needs in the section of the I-405 Corridor between I-90 and Southeast 8th Street.

The Bellevue Nickel Improvement Project Environmental Review Process

Step 1: Discipline Reports
For each environmental topic, a discipline report describes the affected environment, the proposed actions, and how we will avoid, minimize, or mitigate effects of the proposed action.

Step 2: Environmental Assessment
An EA is a concise document that briefly discusses the purpose and need for an action, presents alternatives to the action, and provides sufficient evidence and analysis of effects to determine whether to prepare an EIS or a Finding of No Significant Impact (FONSI).

Step 3: FONSI
A FONSI presents the reasons why an action will not have a significant effect on the environment and therefore does not require the preparation of an EIS. Based on analyses and project feedback received to date, we anticipate preparing a FONSI for the Bellevue Nickel Improvement Project.

What are the boundaries for the Bellevue Nickel Improvement Project?

The project area begins just north of the I-90/I-405 interchange and extends north to just beyond Southeast 8th Street in the City of Bellevue. All of the construction related directly to the project will take place within the existing I-405 right of way.

Preferred Alternative in the FEIS, along with the analyses of five other alternatives.

With some modifications, the Preferred Alternative in the FEIS became the Selected Alternative in the I-405 ROD approved in October 2002. The ROD described the reasons for the decision to advance the Selected Alternative, and explained how the project would avoid, minimize, and compensate for any resulting adverse environmental effects.

We expect that it will take 20 years or more to implement the Selected Alternative for the entire I-405 Corridor Program. To move forward as quickly as we can to improve conditions for those who depend on our transportation system, WSDOT has identified smaller-scale projects that we can implement with available funding. The Bellevue Nickel Improvement Project is one of these projects, and serves as a first step toward completing the Selected Alternative.

How did we develop the Bellevue Nickel Improvement Project?

Using the Selected Alternative as the master plan, we developed a design concept that will improve traffic flow on I-405 between I-90 and Southeast 8th Street. We developed the design concept for the Bellevue Nickel Improvement Project with the following benefits in mind:

- Improving the worst congestion choke points along I-405.
- Improving safety.
- Increasing travel speeds on I-405 in Bellevue during peak commuter hours.
- Improving freight mobility (i.e., truck traffic).

Using professional engineering and planning judgment, we began to shape the design of the Bellevue Nickel Improvement Project. We modified the design of the project where possible to avoid or minimize potential effects.

We are completing the environmental review process for the Bellevue Nickel Improvement Project in three distinct steps, shown in the margin. These steps are consistent with FHWA requirements for preparing a NEPA EA.

Why do we consider a No Build Alternative?

We evaluated a No Build Alternative to create a baseline for comparing the effects associated with the Build Alternative. The No Build Alternative maintains the status quo, meaning that only routine activities such as road maintenance, repair, and safety improvements would occur over the next 20 years.

This alternative does not include improvements that would increase roadway capacity, reduce congestion, or improve safety meaningfully. For these reasons, it does not satisfy the project's intended purpose of providing capacity improvements within the corridor and is not the preferred course of action.

Why have we prepared this environmental assessment for the Bellevue Nickel Improvement Project?

Using the evaluation in this EA, we will determine whether we can issue a Finding of No Significant Impact (FONSI) and proceed to build the project or conclude that we need to prepare an EIS. This EA builds on the analysis in the earlier I-405 Corridor EIS, offering a more in-depth evaluation of the potential effects of this project. Our assessment does not re-examine corridor-level alternatives, effects, or other measures already analyzed and approved in the I-405 Corridor Program EIS.

Did environmental issues directly influence the design of the project?

WSDOT included many refinements intended to avoid or minimize effects to the environment (see Chapter 5, "How will the project affect the environment and what will we do about those effects?"). For example, we modified the design several times to limit contact with streams and wetlands during construction of the improvements.

How have we involved the public as we have developed and studied the alternatives?

We have involved the public in the Bellevue Nickel Improvement Project through a wide range of activities such as:

- Inviting citizens to participate in the project scoping and development process.

What is project scoping?

Project scoping is a public process that serves the following purpose:

- Inform the public and agencies of proposed actions and alternatives.
- Serve as a forum to identify potential environmental effects.
- Ensure that the environmental documents consider reasonable alternatives.
- Help to clarify focus on issues or concerns that are important to the local community and to agencies.

Project Scoping Meeting, January 25, 2005

Bellevue Nickel Improvement Project Outreach

Charette and Van Tour:
October 7, 2002

Bellevue Advisory Committee Meetings:
April 7, 2004; monthly thereafter

Scoping Meeting with Resource Agencies and Jurisdictions:
January 25, 2005

Public Scoping Open House:
January 25, 2005

Neighborhood Meetings:
March 2005 to present

- Reaching out to the public by conducting open houses, producing newsletters, maintaining a website, and giving presentations at neighborhood meetings.
- Launching other outreach efforts such as Executive, Steering, and Advisory Committee meetings.

Project Scoping and Development

More than 100 citizens attended the Bellevue Nickel Improvement Project scoping meeting on January 25, 2005. We invited attendees to submit written and verbal comments to WSDOT during a public comment period. On that same day, we met with cities and agencies that have jurisdiction in the study area to identify and incorporate their concerns and comments.

During the comment period, which occurred from January 9 to February 10, 2005, we actively communicated with citizens via letter, email, and telephone.

Following these meetings, we categorized and compiled the comments into the Bellevue Nickel Improvement Project Scoping Report (see Appendix W). The comments addressed topics such as noise, traffic disruptions, air quality, water quality, stormwater management, and aesthetics.

Public Outreach

Since the Bellevue Nickel Improvement Project received funding in July 2003, we have worked closely with the public, elected officials, local/state/federal agencies, and tribes. We have communicated with the public about the Bellevue Nickel Improvement Project through neighborhood meetings, open house events, and visits to community facilities and businesses.

For example, WSDOT conducted outreach efforts to minority and low-income populations in the area. We contacted municipal agencies and private organizations to identify and locate special groups and to learn about their transportation needs. Some of these organizations included senior centers, area food banks, public health facilities, and libraries.

Committee Involvement

Several standing committees have met regularly to provide ongoing dialogue and coordination for the project. These groups include:

- The **I-405 Executive Committee**, composed of executives from FHWA, FTA, WSDOT, King County, and Sound

Transit, as well as members of the Washington State Transportation Commission and elected officials from cities along the I-405 Corridor, provides monthly to quarterly input on policy matters.

- The **Bellevue Advisory Committee**, made up of citizens, business people, elected officials, partnering agencies, WSDOT, and city staff, effectively reached Bellevue neighborhoods by engaging the community in design, environmental, and aesthetic issues.
- The **I-405 Steering Committee**, consisting of senior staff from the local, regional, state, and federal agencies having jurisdiction within the Bellevue Nickel Improvement Project study area, provides technical and policy guidance. The Steering Committee meets regularly to provide valuable feedback on technical feasibility, environmental acceptability, costs, and performance.
- The **Multi-Agency Permitting (MAP) Team**, composed of eight senior environmental regulators from WSDOT, the Washington State Department of Ecology (Ecology), the Washington State Department of Fish and Wildlife (WDFW), the U.S Army Corps of Engineers (Corps), and King County focuses on issues pertaining to project permitting. The I-405 Team and the MAP Team meet regularly to make project permitting decisions.
- The **I-405 Context Sensitive Solutions (CSS) Committee** focused on the "view from" or "view through" viewshed within the I-405 right of way, as well as the overall theme and character of the roadway. This group of community members and local jurisdictions has provided advice on elements that create a strong visual character and continuity along the entire 30-mile corridor. Measures could include architectural enhancements such as noise/retaining wall treatments, landscaping, bridge treatments, mainline lighting, corridor design themes, and sign structures.

How have we communicated with the public?

Speaker's Bureau – WSDOT personnel made formal presentations to community organizations.

Environmental Outreach – Field studies put WSDOT in touch with residents living in the same area. For example, WSDOT contacted agencies who provide services to low-income and minority populations to discuss the project and how it could affect their services.

Project Website – We provided the I-405 Project Website, at www.wsdot.wa.gov/projects/I-405, as a resource for the public and have updated it regularly.

Newsletters/Project Updates – Newsletter mailings and email updates offered an ideal opportunity to inform the public on project progress.

Return Mail Postcard – Mailings included a return postcard offering an opportunity to comment on the project and to request WSDOT's participation at organization meetings. We distributed individual postcards to libraries, multi-family apartment/condominium associations, and special housing establishments.

How have we involved government agencies?

We have involved governmental agencies through regular meetings and other means to address issues on an as-needed basis. Government agencies have played major roles in the development of the Bellevue Nickel Improvement Project. Here are examples of the ways we have interacted with these key contributors:

- Briefings with Washington State legislators representing districts within the I-405 Corridor Program study area and U.S. Congress members from the Washington State delegation.
- Sessions to review stormwater management strategies with representatives from Ecology, King County, and the City of Bellevue.
- Sessions with the Corps, Ecology, King County, and the City of Bellevue to coordinate wetlands mitigation strategies and site selection.
- Scoping meetings with agencies to discuss traffic, air, noise, endangered species, water, wetlands, and mitigation strategies.
- Discussions with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) on Endangered Species Act (ESA) issues.

How have we involved tribal governments in the project?

WSDOT Executive Order E1025.00

WSDOT Executive Order E1025.00 is based on the Centennial Accord Between the Federally Recognized Tribes in Washington State and the State of Washington (1989) and the Washington State/Tribal Government-to Government Implementation Guidelines (1999).

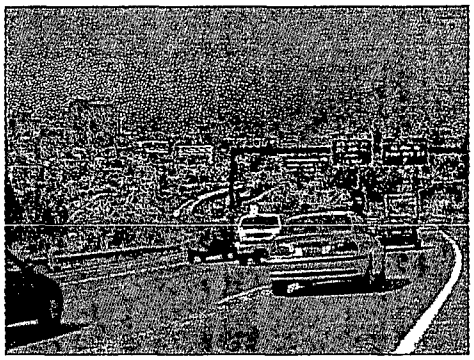
Tribal governments can help identify social issues and solutions that may affect tribal members or other social resources of interest to the tribes. WSDOT commits itself to respectful, effective consultation and communication with tribal governments in recognition that project activities may affect their rights and interests. WSDOT Executive Order E1025.00 on Tribal Consultation (February 19, 2003) established this commitment to an effective working relationship with tribal governments.

WSDOT initiated consultation with the following Tribal Governments during preparation of the I-405 Corridor Program EIS: Muckleshoot Tribe, Tulalip Tribe, Confederated Tribes and Bands of the Yakama Nation, Snoqualmie Tribe, and Duwamish Tribe. This consultation continues as part of the Bellevue Nickel Improvement Project and will help to involve tribal governments in each stage of the environmental analysis. To date, tribal representatives have participated in the Bellevue Nickel Improvement Project by attending project scoping meetings, site visits, participating in public outreach efforts, and meetings with WSDOT to discuss issues of interest.

CHAPTER 4

What are the project's principal features?

The Bellevue Nickel Improvement Project will add one new general-purpose lane in each direction along a 2-mile section of I–405 between I-90 and Southeast 8th Street (see Exhibit 1-1). We will generally use the inside or "median" side of I-405 for construction. The project also includes new stormwater management facilities and drainage structures and systems.



Traffic moving along I-405

Other project activities include developing off-site wetland mitigation as well as on-site stream mitigation areas. We expect project construction to begin in spring 2007 and the improved roadway to be open to traffic by fall 2009. This project will be constructed under a design build contract. A design-build contract provides the contractors flexibility to offer innovative and cost-effective alternatives to deliver the project while complying with all WSDOT design standards, performance measures, and activities to avoid or minimize effects to the environment will be met. Specifics to the project like construction phasing, how the construction will occur, and staging areas will be determined by the design/builder.

Improvements to Southbound I-405

In the southbound direction, we plan to add one new travel lane from approximately Southeast 8th Street to I-90 (Exhibit 4-1). In addition, we will extend the existing outside southbound HOV lane at I-90 northward so that it begins at the on-ramp from Southeast 8th Street.

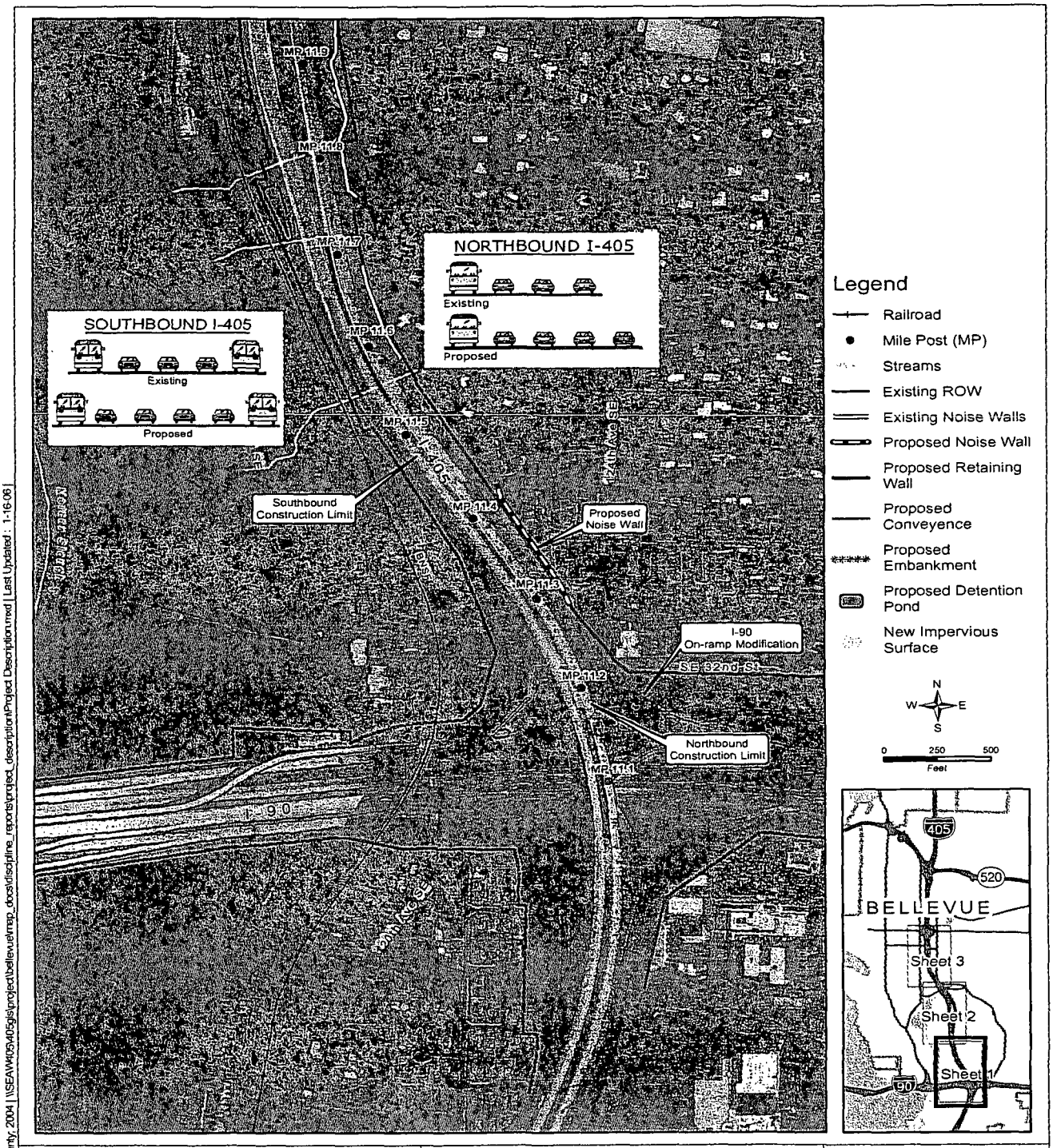
We will add one lane in the southbound direction of I-405 from approximately Southeast 8th Street to I-90.

To add these lanes and maintain traffic flow during construction, we will shift approximately 3,000 feet of the southbound roadway as much as 200 feet east into the existing median.

The relocated southbound roadway will connect to the existing southbound travel lanes just north of the I-90 interchange, and south of the existing bridge over Southeast 8th Street.

- We will build a new tunnel underneath the BNSF railroad, just east of the existing Wilburton Tunnel, to accommodate the relocated and widened southbound roadway. The existing tunnel does not have the capacity to accommodate additional lanes of southbound traffic.

Exhibit 4-1. Proposed Bellevue Nickel Project Improvements (Sheet 1 of 3)



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Southbound Improvements

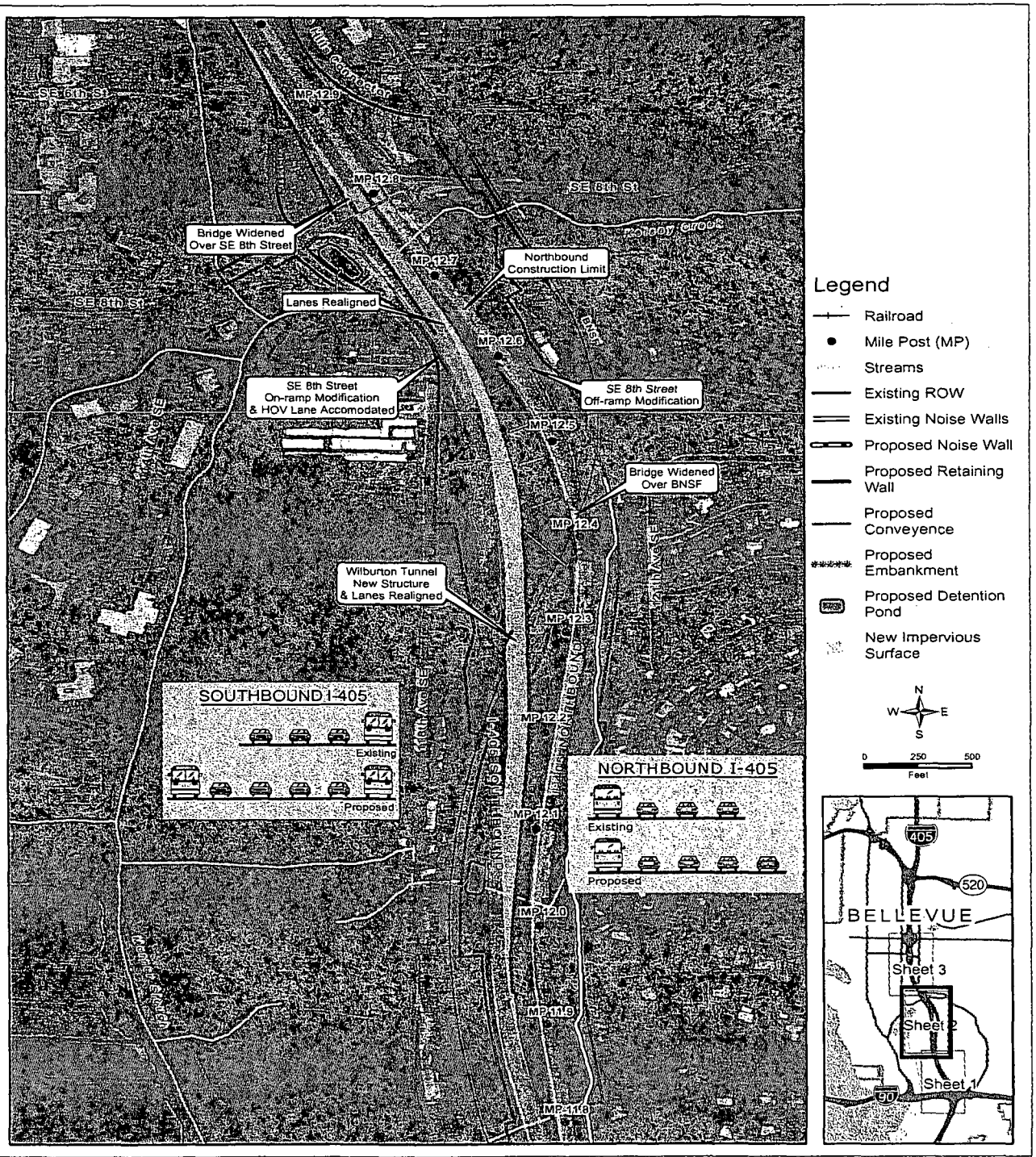
We will add a new lane to the outside by widening existing pavement approximately 20 feet. We will also extend the HOV lane that exits to I-90 northward to Southeast 8th Street.

Northbound Improvements

We will add a new lane by widening existing pavement approximately 10 feet to the inside and by re-striping the I-90 to I-405 connection.

Exhibit 4-1
Proposed Bellevue Nickel Project Improvements
Sheet 1 of 3

Exhibit 4-1. Proposed Bellevue Nickel Project Improvements (Sheet 2 of 3)



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Southbound Improvements

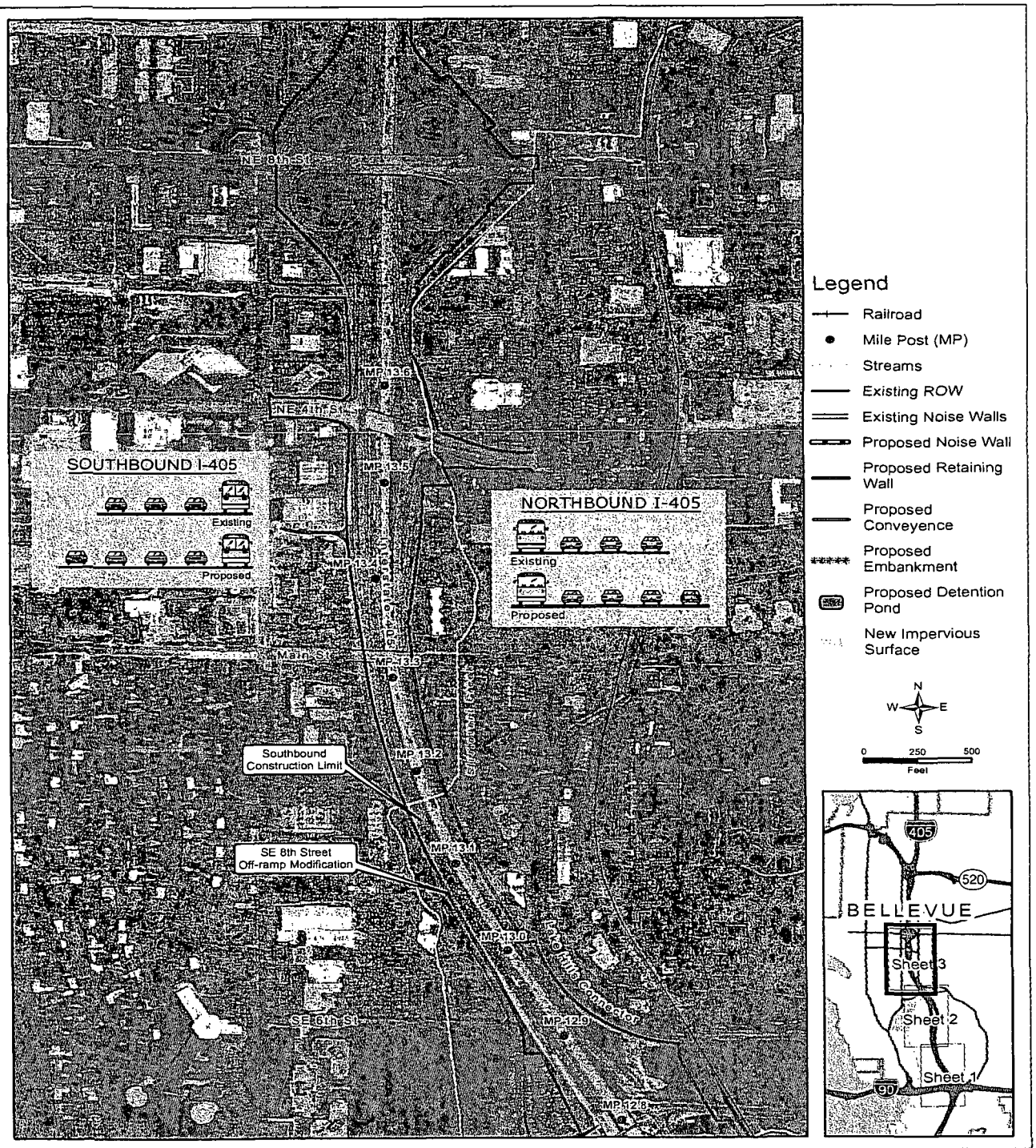
We will add a new lane to the inside by realigning the mainline. We will also add (extend) the HOV lane from Southeast 8th Street to the existing exit at I-90. We will build a new Wilburton Tunnel because of the existing tunnel's capacity limitation.

Northbound Improvements

We will add a new lane by widening existing pavement approximately 10 feet to the inside.

Exhibit 4-1
Proposed Bellevue Nickel Project Improvements
Sheet 2 of 3

Exhibit 4-1. Proposed Bellevue Nickel Project Improvements (Sheet 3 of 3)



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Southbound Improvements

We will reconfigure the ramp to Southeast 8th Street to improve access.

Northbound Improvements

We propose no changes for this section of the interstate.

Exhibit 4-1
Proposed Bellevue Nickel Project Improvements
Sheet 3 of 3

The existing southbound travel lanes and the Wilburton Tunnel will remain open to traffic during construction of the new tunnel and the relocated/widened southbound lanes. We will also build the new tunnel wide enough to accommodate additional lanes. The existing tunnel will remain after we complete the improvements.

The project will also include the following improvements:

- Modify the existing off-ramp at Southeast 8th Street to make room for an additional southbound lane on I-405. The off-ramp will then become a single-lane, optional off-ramp (i.e., the off-ramp will no longer be an "exit only" off-ramp).
- Build a retaining wall between the southbound travel lanes and the off-ramp at Southeast 8th Street.
- Widen the existing bridge over Southeast 8th Street to the west to accommodate the new southbound lane.
- Modify the existing on-ramp at Southeast 8th Street to tie into the relocated southbound general-purpose travel lanes.
- Reconfigure the on-ramp at Southeast 8th Street to accommodate the extended outside HOV lane.
- Temporarily shift the existing BNSF railroad track from its current alignment to allow for continuous railroad operation during construction of the new tunnel.
- Construct retaining walls along the eastern edge of the relocated southbound travel lanes.
- Use context sensitive solutions (CSS) to unify the new structural elements added by the project with the existing visual environment. Use surface treatments to add texture and interest to retaining walls, widened bridges, freeway lighting, and signage.

Context Sensitive Solutions is a term used to describe a collaborative, approach whereby a transportation facility is designed with extensive input from the public to fit its physical setting.

Improvements to Northbound I-405

In the northbound direction, we plan to add one new travel lane from approximately I-90 to Southeast 8th Street (Exhibit 4-1). We will add one new lane to the northbound ramp from I-90. We will shift the northbound lanes to allow all of the widening to occur on the inside, or median side of the existing roadway.

Additional improvements include:

- Re-stripe the westbound/eastbound I-90 on-ramp to northbound I-405 so that one lane becomes two lanes in the northbound direction.
- Widen, shift, and re-stripe northbound I-405 travel lanes north of I-90 to allow the westbound I-90 to northbound I-405 on-ramp and the eastbound I-90 to northbound I-405 on-ramp to enter I-405 without having to merge into a single lane.
- Construct several retaining walls needed for road widening in locations that allow for existing and future widening of I-405.
- Construct a noise barrier approximately 725 feet long and 16 feet high.
- Widen the existing bridge over the BNSF railroad to the west to accommodate the new northbound lane.
- Modify the northbound off-ramp to Southeast 8th Street to make it a single-lane "exit-only" off-ramp.
- Transition the northbound travel lanes back into the existing lane configuration before crossing over Southeast 8th Street.

We will add one lane in the northbound direction of I-405 from approximately I-90 to Southeast 8th Street. All widening of the northbound mainline will occur on the inside (median side) of the existing roadway.

Improvements to the Stormwater Management System

Managing stormwater for the Bellevue Nickel Improvement Project involves the collection and treatment of rainfall runoff from the new project pavement consistent with the guidelines in the WSDOT Highway Runoff Manual.

Currently, we treat less than 5 percent of the existing runoff from paved surfaces in the study area before discharging it. We will improve this condition by treating 17 percent more area than the new paved surface area we create. Treating a larger area enables us to remove pollutants from a portion of the existing roadway as well as from newly constructed areas. We achieve the added benefit of improved flow control.

Reconfiguration and new construction associated with the southbound lanes will mean that we need to replace much of the existing drainage system. We will continue to use open roadside ditches along the shoulders of the roadway where possible. We will use standard WSDOT catch basins and manhole structures

to move the roadway runoff to a system of stormwater drain pipes. These features will transport runoff to treatment and flow-control facilities within the existing right of way.

We will construct three new stormwater ponds (detention ponds combined with stormwater treatment wetlands) as part of the project and enlarge an existing stormwater pond at Southeast 8th Street. Two of the new ponds will be located south of the Wilburton Tunnel between the southbound lanes and the BNSF railroad right of way. We will construct the third new pond in the northwest quadrant of the I-90/I-405 interchange. The project will discharge treated stormwater following existing flow patterns to Mercer Slough.

Avoidance and Minimization Measures

We will use best management practices (BMPs), WSDOT Standard Specifications, and design elements to avoid or minimize potential effects to the environment from the Bellevue Nickel Improvement Project. We refer to measures that avoid or minimize potential effects to the environment as "avoidance measures." We describe these measures in more detail in Appendix B. If the Bellevue Nickel Improvement Project has additional effects not addressed in the avoidance measures, we will address these effects through mitigation.

Best Management Practices (BMPs)

BMPs are generally accepted techniques that, when used alone or in combination, prevent or reduce adverse effects of a project. Examples include erosion control measures and construction management to minimize traffic disruption. Please see Appendix B for a complete list of BMPs.

WSDOT Standard Specifications

Guidelines and procedures established by WSDOT for roadway design and construction.

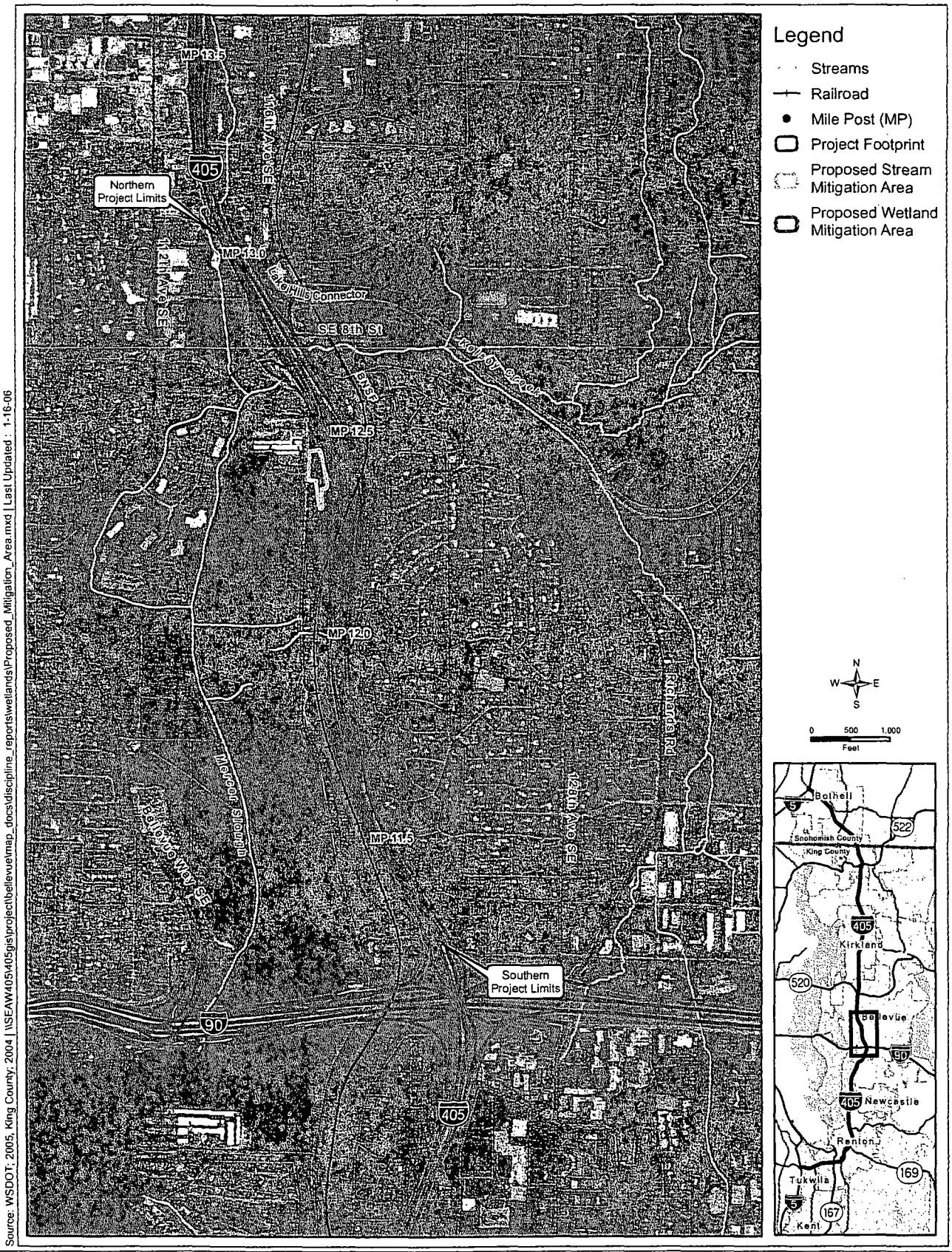
Wetland and Stream Mitigation Sites

We will compensate for adverse effects to wetlands and their buffers by creating just over an acre of wetland at a mitigation site located within the boundaries of Kelsey Creek Park (Exhibit 4-2). Our general concept will be to create a new wetland area that naturally transitions from forested land next to the Lake Hills Connector to wetlands within Kelsey Creek Park. We will remove soil from within this area to create wet conditions favorable for wetland vegetation. This approach will create a wetland of higher functional value and greater area at Kelsey Creek Park than the wetland area affected by the Bellevue Nickel Improvement Project.

Our preliminary stream mitigation plan includes both on-site stream creation and streamside vegetation enhancement. Specifically, proposed elements include:

- Approximately 500 linear feet of new stream channel between southbound I-405 and 118th Avenue Southeast.

Exhibit 4-2. Proposed Wetland and Stream Mitigation Areas



Source: WSDOT; 2005, King County; 2004 | \\SEAW405405gis\project\bellevue\map_docs\discipline_reports\wetlands\Proposed_Mitigation_Area.mxd | Last Updated : 1-16-06

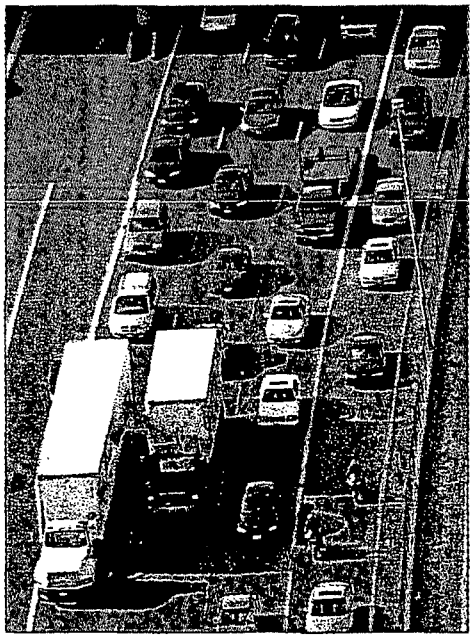
- Just over an acre of new streamside vegetation along the newly created stream channel.
- Just under an acre of enhanced stream buffer created by removing non-native plant species and replanting with native streamside vegetation.

Sections 5.4, "Surface Water, Water Quality, and Floodplains," and 5.6, "Wetlands" provide further details on the mitigation efforts associated with the Bellevue Nickel Improvement Project. We also include the full text of these discipline reports as Appendices N and R to this report.

CHAPTER 5

How will the project affect the environment and what will we do about those effects?

Many of the environmental effects of the Bellevue Nickel Improvement Project will be positive, and we believe the overall outcome will be an improvement in conditions for people who live and travel in the area.



Congestion building along the I-405 corridor

In this chapter we will consider all the potential effects of the Bellevue Nickel Improvement Project on people and the environment. The project team conducted a total of 19 studies and we summarized our analyses in discipline reports to understand how the project might affect the area. The full text of the reports appears in Appendices D through V, provided on a CD included with this EA.

Following the introduction to this chapter in Sections 5-1 through 5-8, we include more detailed analyses for the environmental elements listed below:

- Traffic and Transportation
- Noise and Vibration
- Natural Environment, including:
  - Fisheries and Aquatic Resources
  - Surface Water, Floodplains, and Water Quality
  - Upland Vegetation and Wildlife
  - Wetlands
- Built Environment, including:
  - Historical, Cultural, and Archaeological Resources and Section 4(f) Resources
  - Visual Quality

Below we provide a brief summary of our findings for elements where we expect beneficial environmental effects and/or no effects at all.

Land Use Patterns, Plans and Policies (Appendix E): The project supports the local land use pattern by adding capacity to I-405, and that new capacity will allow traffic to shift from the local arterials to I-405 and will contribute to improved local

access within the study area. We found no inconsistencies between the City of Bellevue's adopted plans and policies and the project.

Social Elements (Appendix F): The project will not have any notable adverse effects on neighborhoods, parks, recreation, and pedestrian and bicycle facilities. Upon completion of the project there will be some social benefits, including an improvement in noise effects for the residents of Juniper Ridge Apartments and restoration of wetland functions within a portion of Kelsey Creek Park.

Economics (Appendix G): Construction of the project will bring new jobs into the Central Puget Sound area and contribute tax revenues to local jurisdictions including the City of Bellevue and King County. We will avoid daytime closures of freeway lanes and local streets to maintain access to commercial areas and overall mobility through the construction area.

Environmental Justice (Appendix H): The project may benefit minority and low-income populations by improving access to public services and by enabling increased speeds in the HOV transit lanes. We do not expect the Bellevue Nickel Improvement Project to cause any long-term adverse effects to low-income or minority populations.

Public Services and Utilities (Appendix J): The project will benefit public services within the study area through reduced peak hour congestion along I-405 and improved travel times. These traffic improvements will benefit emergency service providers (police, fire, and ambulance services) that must travel on I-405. The traffic improvements will also benefit everyone who travels to or from public services (schools, museums, government offices) via either private vehicles or public transit by increasing the number of vehicles traveling through the study area on I-405 and improving travel speeds by as much as 15 miles per hour. The project will have little effect on utilities after construction is complete.

Air Quality (Appendix L): Because the Bellevue Nickel Improvement Project will not increase traffic on local surface streets, nor change the configuration of any intersection in the study area, the project will have no effect on local air quality and will not contribute to exceedances of the National Ambient Air Quality Standards regionally.

Geology, Soils, and Groundwater (Appendix Q): We expect no permanent effects from the project related to soils, geology, or groundwater, except for an increase of less than 1 percent in

impervious surfaces (surfaces that cannot be penetrated by water) when compared to the overall Kelsey Creek watershed. We also expect no unavoidable negative construction effects because we have well-established design and construction practices for managing issues associated with the types of soil, geologic, and groundwater conditions we expect to find along the project area.

Hazardous Materials (Appendix S): We found four possible hazardous materials sites within the study area, but outside of the project area. These sites are generally small and the contaminants are localized and relatively non-toxic. Effects from hazardous materials are unlikely.

Energy (Appendix T): We anticipate no adverse effects and WSDOT will develop specifications for project construction to encourage energy conservation.

Cumulative Effects Analysis (Appendix V): The I-405 Corridor Program Cumulative Effects Analysis focused on air quality, fish and aquatic habitat, surface water, and wetlands. While we expect no cumulative effect on local or regional air quality, we believe the Bellevue Nickel Improvement Project will contribute to positive cumulative effects on fish and aquatic habitat, surface water, and wetlands.

How did we use the environmental information we gathered to improve the project?

Once the project team collected the information necessary to conduct the analyses we refer to in the environmental elements sections (listed on page 5-1), environmental team members met with roadway designers to identify places where project construction could affect the environment.

These interactions resulted in design modifications intended to protect environmental resources. For example, to avoid or reduce overall effects to wetlands, we overlaid wetland locations identified by the environmental team on the preliminary design plans and made adjustments in the roadway alignment, roadside slopes, and location of stormwater facilities.

To avoid or minimize project effects on streams, design team members also used the analysis provided in the Surface Waters, Water Quality, and Floodplains Discipline Report. We made several field visits to examine culvert crossings along the corridor and to consider ways of modifying the grading plan to

avoid the need to extend culverts. We worked to reduce or avoid effects to visual quality, vegetation, geological features, and noise as well.

How did we evaluate potential effects?

After making design modifications to avoid or minimize effects, we determined the environmental, social, and economic changes that would result from constructing and operating the Bellevue Nickel Improvement Project. Team members followed the methods and guidelines in the 2004 WSDOT Environmental Procedures Manual (M 31-11).

Everyone on the project team has considered the environmental consequences of the project, and we have maximized positive effects and avoided and minimized negative effects wherever possible.

What federal, state, and local laws and regulations govern the Bellevue Nickel Improvement Project?

The laws and regulations listed in Exhibit 5-1 provide the legal framework for the Bellevue Nickel Improvement Project. These interrelated laws and regulations give us thresholds for evaluating how a transportation project might affect each resource and guide our responses.

Exhibit 5-1. Regulatory Framework

Statutes/Regulations/Ordinances	Disciplines
Federal	
42 USC 4231 and 40 CFR 1500-1508 National Environmental Policy Act - promotes the desire for a sustantainable environment balanced with other essential needs of the present and future. Established a supplemental mandate for federal agencies to consider potential environmental consequences of proposals and to provide the public an opportunity to comment prior to implementation.	All
16 USC 470 (Section 106 National Historic Preservation Act) – requires federal agencies to take into account the effects of their undertakings on historic or potential historic properties, and afford the Advisory Council on Historic Preservation an opportunity to comment.	Environmental Justice
49 USC 303 Section 4(f) of 1966 DOT Act – preserves the beauty and integrity of public parks and recreation areas, waterfowl and wildlife refuges, and historic sites considered to have national, state, or local significance.	Section 4(f) Resources and Environmental Justice
23 USC 109(h) Federal Aid Highway Act – calls for uniform interstate design standards to accommodate traffic forecast in the future 20 years.	Traffic and Transportation, Social Elements, Economics, and Environmental Justice
23 USC 128 Highways – provides the community an opportunity for a public hearing at or near the project.	Social Elements and Economics
23 USC CFR 771 FHWA Right of and Environment – provides requirements to FHWA to implement NEPA for highway projects.	All
42 USC Safe Water Drinking Act – protects public health by regulating the public drinking water supply including its sources.	Traffic and Transportation; Geology, Soils, and Groundwater; and Hazardous Materials
33 USC 1251 Clean Water Act - mandates the identification and protection of waters in each state. Makes it unlawful for any person to discharge pollutants from a point source into navigable waters, unless a permit is obtained.	Surface Water, Water Quality, and Floodplains; Fisheries and Aquatic Resources; Wetlands; Geology, Soils, and Groundwater; and Cumulative Effects Analysis
Endangered Species Act of 1973 – provides for the conservation of endangered and threatened species of fish, wildlife, and plants, and for other purposes.	Fisheries and Aquatic Resources, Wetlands, Upland Vegetation and Wildlife, and Cumulative Effects Analysis
33 USC 401 (Section 10) Rivers and Harbors Act – provides the process for approvals to construct any bridge, causeway, dam, or dike over or in any port, roadstead, haven, harbor, canal, navigable river, or other navigable water of the United States.	Fisheries and Aquatic Resources and Cumulative Effects Analysis
16 USC 1451 Coastal Zone Management Act – preserves, protects, develops, and where possible, restores or enhances the resources of the nation's coastal zone.	Fisheries and Aquatic Resources, Wetlands, and Cumulative Effects Analysis
15 CFR 923 to 940 Regulations for Coastal Zone Management – requires states to develop a management program that identifies and evaluates coastal resources in need of management or protection by the state.	Wetlands and Cumulative Effects Analysis

Statutes/Regulations/Ordinances	Disciplines
16 USC 703-712 Migratory Bird Treaty Act – *makes taking, killing, or possessing migratory birds unlawful.*	*Upland Vegetation and Wildlife*
16 USC 668a-d Bald and Golden Eagle Protection Act – prohibits any form of possession or taking of bald and golden eagles.	Upland Vegetation and Wildlife
42 USC 4905-4913 Noise Control Acts – intends an environment free from noise that jeopardizes health or welfare.	Noise and Vibration
23 CFR 772 Noise Abatement – provides procedures for noise studies and noise abatement measures to help protect the public health and welfare, supplies noise abatement criteria, and establishes requirements for information to be given to local officials for use in the planning and design of highways.	Noise and Vibration
42 USC 103 CERCLA -Superfund Cleanup – addresses abandoned, accidentally spilled, or illegally dumped hazardous waste that pose current or future threats to human health or the environment.	Hazardous Materials
40 CFR RCRA – provides procedures and standards for hazardous/chemical waste management.	Hazardous Materials
42 USC 7401 Clean Air Act – sets national pollution control standards; allows individual states to have stronger pollution controls, not weaker pollution controls than those set for the nation.	Air Quality and Cumulative Effects Analysis
23 CFR Utility Relocation – allows for reimbursement for payment of costs incurred under all Federal Highway Administration (FHWA) utility agreements.	Public Services and Utilities
45 CFR 91 Age Discrimination Act – prohibits discrimination on the basis of age in programs or activities receiving federal financial assistance. The Age Discrimination Act applies to persons of all ages.	Social Elements and Environmental Justice
N-4720.6 Civil Rights Restoration Act – prohibits discrimination throughout an entire agency if any part of the agency receives federal financial assistance.	Environmental Justice
29 USC Section 504 Rehabilitation Act – prohibits "otherwise qualified handicapped individual" to be excluded from participation in program or activity receiving federal financial assistance.	Environmental Justice
49 CFR American Disabilities Act – prohibits discrimination and ensures equal opportunity for persons with disabilities in employment, state and local government services, public accommodations, commercial facilities, and transportation.	Environmental Justice
42 USC 2000(d) Title VI of Civil Rights Act – prohibits discrimination on the basis of race, color, and national origin in programs and activities receiving federal financial assistance.	Social Elements, Economics, and Environmental Justice
PL 91-646, as amended Uniform Relocation Assistance and Real Property Acquisition Act – assures that the unique circumstances of any displaced person are taken into account and that persons in essentially similar circumstances are accorded equal treatment.	Social Elements and Economics
President's Executive Order 11990 Wetlands Protection – orders avoid adverse impacts associated with the destruction or modification of wetlands and new construction in wetlands, wherever practicable.	Wetlands and Cumulative Effects Analysis
U.S. DOT Order 56601A Wetlands – requires federal and state agencies to avoid the adverse impacts associated with the destruction or modification of wetlands.	Wetlands and Cumulative Effects Analysis
President's Executive Order 12898 Environmental Justice – requires each federal agency to identify and address disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.	Social Elements and Environmental Justice

Statutes/Regulations/Ordinances	Disciplines
President's Executive Order 13166 Improving Access for those with Limited English Proficiency – requires federal agencies to examine the services they provide, identify any need for services to those with limited English proficiency (LEP), and develop and implement a system to provide access to those services.	Social Elements and Environmental Justice
State	
Chapter 197-11 and Chapter 468-12 WAC State Environmental Policy Act – requires the state and local agencies to consider the likely environmental consequence of a proposal before approving or denying the proposal.	Noise and Vibration; Wetlands; Upland Vegetation and Wildlife; Geology, Soils, and Groundwater; Visual Quality; Social Elements; Land Use Patterns, Plans, and Policies; Historical, Cultural, and Archaeological Resources; Environmental Justice; Public Services and Utilities; and Wetlands
Chapter 70-107 RCW Noise Control – provides the state statutory authority for establishing maximum noise levels permissible in identified environments, and thereby provides use standards relating to the reception of noise within such environments.	Noise and Vibration
RCW 47.40.010 Roadside Improvement and Beautification – declares as a proper highway purpose, the planting and cultivating of any shrubs, trees, hedges, or other domestic or native ornamental growth, the improvement of roadside facilities and view points, and the correction of unsightly conditions, upon the right of way of any state highway.	Visual Quality
Chapter 36.70 RCW Growth Strategies Act – guides and regulates the physical development of a county or region through connecting both public and private projects and coordinates their execution.	Land Use Patterns, Plans, and Policies
RCW 36.70A.070 as amended Growth Management Act – guides the development and adoption of comprehensive plans and development regulations for counties and cities.	Wetlands; Geology, Soils, and Groundwater; Land Use Patterns, Plans, and Policies; and Cumulative Effects Analysis
Chapter 90.48 RCW Water Pollution Control Act – requires the use of all known, available, and reasonable methods by industries and others to prevent and control the pollution of the waters of the State of Washington.	Surface Water, Floodplains, and Water Quality; Fisheries and Aquatic Resources; Wetlands; Geology, Soils, and Groundwater; and Cumulative Effects Analysis
Chapter 173-200 WAC Ground Water Quality Standards – establishes water quality standards for groundwater and applies to all groundwaters of the state that occur in a saturated zone or stratum beneath the surface of land or below a surface water body.	Geology, Soils, and Groundwater
Chapter 173-201A WAC Surface Water Quality Standards – establishes water quality standards for surface waters of the State of Washington consistent with public health and public enjoyment of the waters and the propagation and protection of fish, shellfish, and wildlife.	Surface Water, Floodplains, and Water Quality; Fisheries and Aquatic Resources; Wetlands; and Cumulative Effects Analysis

Statutes/Regulations/Ordinances	Disciplines
Chapter 220-110 WAC Hydraulic Code – establishes regulations for the construction of hydraulic project(s) or performance of other work that will use, divert, obstruct, or change the natural flow or bed of any of the salt or fresh waters of the state, and sets forth procedures for obtaining a hydraulic project approval (HPA).	Surface Water, Floodplains, and Water Quality; Fisheries and Aquatic Resources; and Cumulative Effects Analysis
Chapter 246-290 WAC Public Water Supplies – defines basic regulatory requirements that protect the health of consumers using public drinking water supplies.	Geology, Soils, and Groundwater
WAC 232-12-292 Washington State Bald Eagle Protection Rules – makes it unlawful to hunt predatory birds unless approved through a license.	Upland Vegetation and Wildlife
Chapter 90.58 RCW Shoreline Management Act – adopts guidelines for local governments when developing master programs for shorelines of statewide significance.	Fisheries and Aquatic Resources, Wetlands, and Cumulative Effects Analysis
Chapter 47.44 RCW Franchises – requires rules to be adopted to provide for a hearing or an opportunity for a hearing with respect to any franchise application involving the construction and maintenance of utilities or other facilities within the highway right of way.	Public Services and Utilities
Chapter 468.34 WAC Utility Franchises and Permits – provides the application requirements for franchises and permits.	Public Services and Utilities
Chapter 70-105 RCW Hazardous Waste Management Act – establishes a comprehensive statewide framework for the planning, regulation, control, and management of hazardous waste. The intention of this framework is to prevent pollution and conserve resources of the state.	Hazardous Materials
Chapter 173-303 WAC Dangerous Waste – implements Hazardous Waste Management Act and provides process and standards for management of dangerous and extremely hazardous waste.	Hazardous Materials
Chapter 173-360 WAC Underground Storage Tank – addresses the threat posed to human health and the environment by leaking underground storage systems containing petroleum and other regulated substances.	Hazardous Materials
Chapter 70.105D RCW Model Toxics Control Act – raises sufficient funds to clean up all hazardous waste sites and to prevent the creation of future hazards due to improper disposal of toxic wastes into the state's land and waters.	Geology, Soils, and Groundwater; and Hazardous Materials
Chapter 173-340 WAC Model Toxics Control Act – addresses the releases of hazardous substances caused by past activities.	Geology, Soils, and Groundwater; and Hazardous Materials
Chapter 173-326 WAC Commercial Low-level Radioactive Waste – institutes a user permit system and issues site use permits for generators, packagers, or brokers using the Hanford low-level radioactive waste disposal facility.	Hazardous Materials
Governor's Executive Order EO-89-10 (Protection of Wetlands) – stated goals of the order are no net loss in function and acreage of existing wetlands and an increase in the quality and quantity of wetlands.	Wetlands and Cumulative Effects Analysis
Governor's Executive Order EO-90-04 Protection of Wetlands – requires rigorous enforcement of agencies' authority to assure wetlands are protected.	Wetlands and Cumulative Effects Analysis
Governor's Executive Order 93-07 Commitment to Diversity and Equity in Service Delivery and in the Communities of the State – directs all executive agencies and institutions of higher education to initiate actions to integrate the principles of diversity into all facets of workplace community and in the delivery of services to the people of Washington. Reaffirms the commitment to the elimination of all barriers to employment that artificially restrict hiring, promotion, recruitment, and tenure on the basis of any physical, cultural, religious, language, or other status that is not directly related to the performance of a job.	Environmental Justice

Statutes/Regulations/Ordinances	Disciplines
WSDOT Highway Runoff Manual – guides WSDOT, engineering consultants, and many local agencies in design of stormwater systems for transportation projects.	Surface Water, Floodplains, and Water Quality; and Cumulative Effects Analysis
Local	
Bellevue Community Code 9.12 Sanitation of Lakes and Streams – prohibits material that will cause or tend to cause a polluted condition of such lakes and streams.	Surface Water, Floodplains, and Water Quality; and Cumulative Effects Analysis
Bellevue Community Code 20.25 Special and Overlay Districts – provides requirements for development and activity within the city districts including public access with bridges and other structures.	Surface Water, Floodplains, and Water Quality; and Cumulative Effects
King County Code 20.62 King County Landmarks – protects, enhances, and perpetuates the use of buildings, sites, districts, structures, and objects of historical, cultural, architectural, engineering, geographic, ethnic, and archaeological significance located in King County.	Section 4(f) Resources

Notes: Disciplines include: Traffic and Transportation; Noise; Surface Water, Floodplains, and Water Quality; Fisheries and Aquatic Resources; Wetlands; Upland Vegetation and Wildlife; Geology, Soils, and Groundwater; Air Quality; Visual Quality; Social Elements; Economics; Land Use Patterns, Plans, and Policies; Historical, Cultural, and Archaeological Resources; Environmental Justice; Public Services and Utilities; Section 4(f) Resources; and Hazardous Materials; Energy; and Cumulative Effects Analysis.

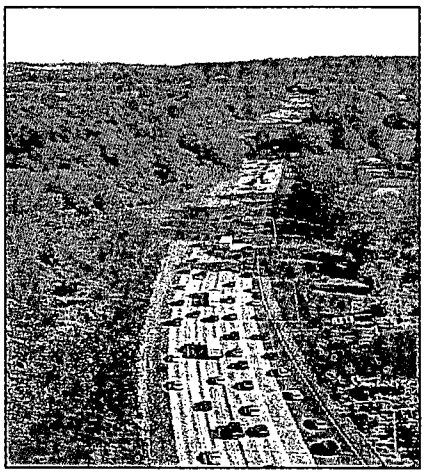
5.1 Traffic and Transportation

When it opens in 2009, the Bellevue Nickel Improvement Project will increase the number of vehicles able to travel through the study area, improve travel speeds, and improve safety by reducing the potential for congestion-related accidents.

The I-405 Corridor serves as an important transportation thoroughfare for the region. Traffic levels in the corridor have increased as a result of growth in the regional economy and associated changes in employment and population.

Understanding how traffic and transportation conditions change over time is important to developing and maintaining an efficient and effective transportation system.

This section of the EA describes the current traffic conditions on the Bellevue segment of I-405 and predicts what those conditions will be like in the future, both with and without the Bellevue Nickel Improvement Project.



Southbound afternoon traffic on I-405 heading into the Wilburton Tunnel

Please refer to the Bellevue Nickel Improvement Project Traffic and Transportation Discipline Report in Appendix D (on CD) for a complete discussion of the traffic analysis.

What is traffic on I-405 like now?

The I-405 Corridor Program EIS used freeway traffic data for the year 2002 to represent existing traffic conditions in the corridor. We also used the 2002 traffic data in this EA because it is the most current data available.

The 2002 traffic data show that the portion of I-405 through Bellevue within the study area is one of the busiest segments of the entire I-405 corridor. Each weekday an average of 210,000 vehicles travel this portion of the freeway.

In the AM peak period, northbound is the peak travel direction for I-405 in the study area (Exhibit 5.1-1). Northbound I-405 between I-90 and Southeast 8th Street carried 7,000 vehicles and 8,970 persons during the 2002 AM Peak Hour. Northbound general purpose lanes averaged speeds of 30 to 45 miles per hour.

What is the Peak Period?

The period of the day during which the maximum amount of travel occurs. The peak period may be specified as the morning (AM) or the afternoon (PM) peak.

In the PM peak period, southbound is the peak travel direction for I-405 in the study area (Exhibit 5.1-1). Southbound I-405 between Southeast 8th Street and I-90 carried 6,130 vehicles and

Peak vs. Off-Peak Travel Directions

Peak travel direction is the direction of the freeway with higher demand and more congestion.

Off-Peak travel direction is the direction of the freeway with the lower demand.

General Purpose Lanes

Roadway lanes available for use by all traffic.

High Occupancy Vehicle (HOV) Lanes

Roadway lanes available for buses, vanpools, and carpools with more than one occupant. Currently, two or more occupants per vehicle are required by WSDOT to use the I-405 HOV Lanes.

8,060 persons in the 2002 PM Peak Hour. Average speeds in the southbound general purpose lanes ranged between 15 and 30 miles per hour.

Traffic in the HOV lanes generally flows freely during both the AM and PM peak periods. Off-peak directions also experience delays and congestion.

Traffic in the HOV lanes generally flows freely during both the AM and PM peak periods. Off-peak directions also experience delays and congestion.

Are there safety concerns in the study area?

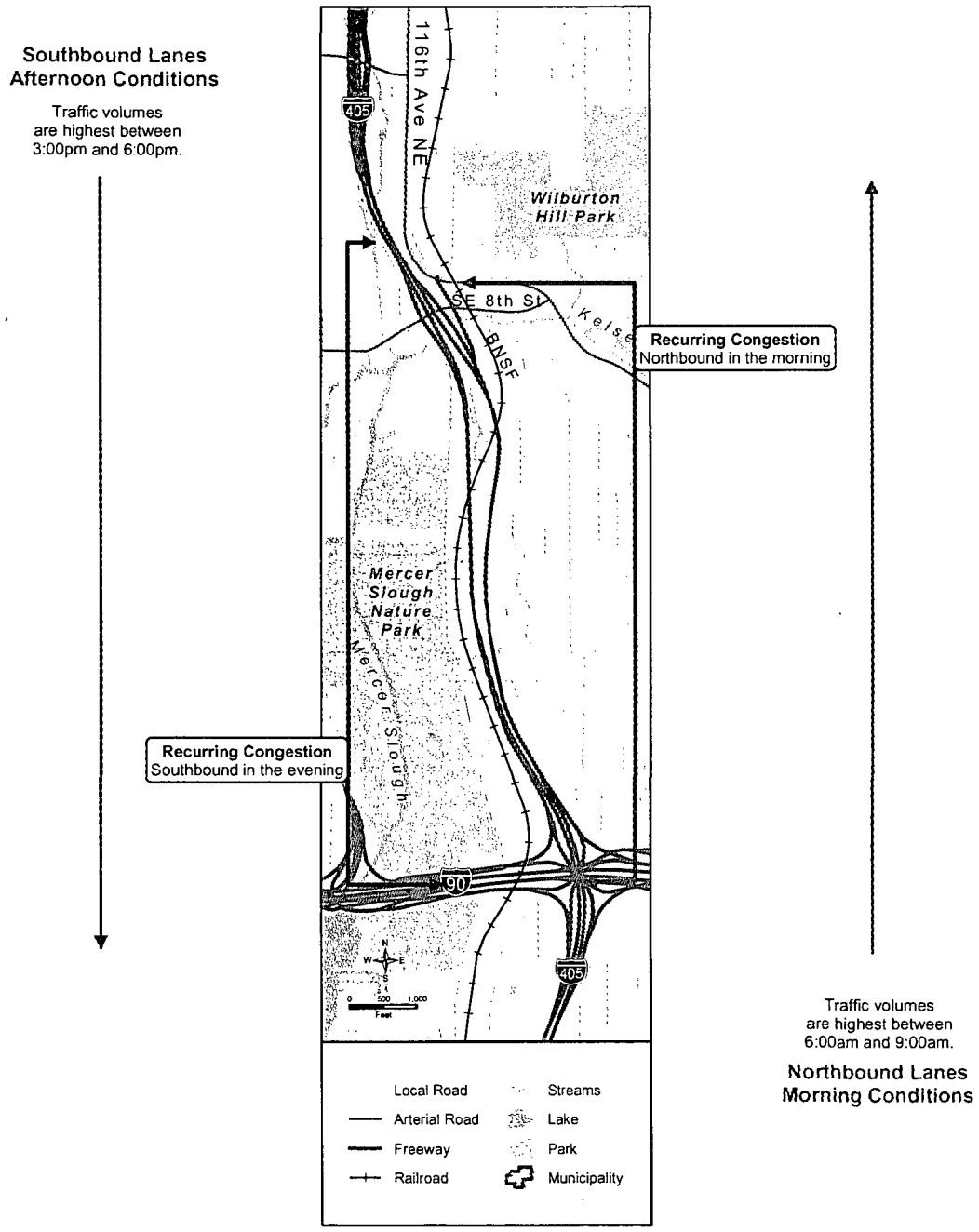
We reviewed historical accident information for 2001, 2002, and 2003, the most recent information available for this analysis. The accident rate in the study area was 1.08 accidents per million vehicle miles of travel, lower than the average for the I-405 corridor. The overall accident rate along I-405 was 1.48. This outcome is similar to other freeways in King County.

The majority (49 percent) of the accidents in this area were rear-end-type accidents. The prevalence of this type of accident is consistent with the high traffic volumes and traffic congestion in this area.

What transit service is available in the study area?

King County Metro (Metro) and Sound Transit provide transit service within the Bellevue Nickel Improvement Project study area. Four Metro bus routes (167, 243, 280, and 952), travel on I-405 and serve the Wilburton Park-and-Ride via bus stops on the I-405 ramps at Southeast 8th Street. The Wilburton Park-and-Ride is adjacent to the I-405 southbound off-ramp to Southeast 8th Street. Metro routes 342 and 885 serve the Wilburton Park-and-Ride via local streets. Sound Transit routes 564 and 565 travel on I-405 through the study area.

Exhibit 5.1-1. Traffic Conditions Today



How well do the local surface streets operate today?

We looked at AM and PM Peak Hour traffic volumes on local surface streets to determine average delay per vehicle at the following six signalized intersections:

- Southeast 8th Street and 114th Avenue Southeast
- Southeast 8th Street and 118th Avenue Southeast
- I-405 southbound ramps at Southeast 8th Street
- I-405 northbound ramps at Southeast 8th Street
- I-405 northbound off-ramp at Lake Hills Connector
- Southeast 8th Street and 121st Avenue Southeast

We found that overall, local surface streets operate with moderate levels of congestion. Some turning movements have backups during the AM and PM Peak Hours.

How did we determine future traffic volumes?

Puget Sound Regional Council (PSRC) travel forecast model

A computer model that predicts regional traffic volumes and travel patterns based on population and employment projections for King, Snohomish, Pierce, and Kitsap Counties.

We used the Puget Sound Regional Council (PSRC) four-county travel forecast model as a starting point for determining future traffic volumes on I-405 within the study area.

Using the model, we then calculated future traffic volumes on I-405 within the study area for the years 2014 and 2030. We used the 2014 to represent a conservative date for when the project would be open to traffic (even though we plan to have the project open by fall 2009). We used 2030 to be consistent with the planning horizon used for the I-405 Corridor Program.

Our forecasts for 2014 and 2030 assume that growth in HOV volumes on I-405 will require a change in WSDOT policy regarding the number of persons per vehicle required to use the HOV lanes. Currently, vehicles with two or more persons can use the HOV lanes. By 2014, we assume the requirement will change to three or more persons per vehicle.

How will the project affect future traffic volumes on I-405?

Future regional population and employment growth will increase traffic volumes on I-405 compared to today. The additional lanes provided by the Bellevue Nickel Improvement Project will allow more vehicles to travel through the study area than do today. The additional lanes will also allow northbound and southbound traffic traveling through the area on local surface streets to shift to I-405.

With the completed project, we predict a combined total of 225,000 vehicles per day will travel on the northbound and southbound lanes of I-405 between I-90 and Southeast 8th Street in 2014. If we do not build the project, traffic volumes would still increase to 218,000 vehicles per day.

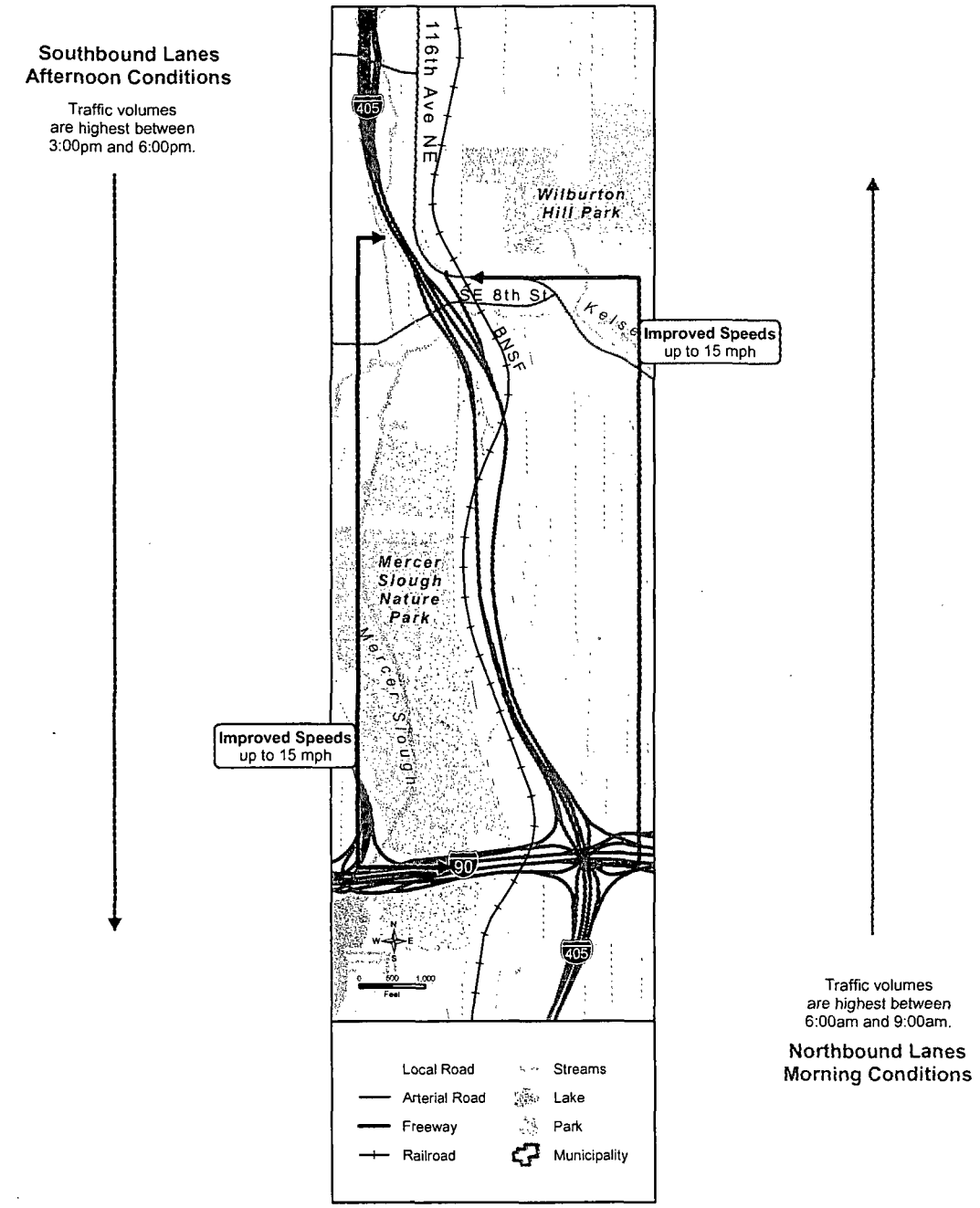
While daily traffic volumes increase with the Bellevue Nickel Improvement Project, the improvements will have little effect on future traffic volumes during the AM and PM Peak Hours. In 2014, existing bottlenecks on I-405 south of the study area at 112th Avenue/Coal Creek Parkway, and north of the study area on SR 520, will continue to slow traffic on I-405, thereby limiting the number of vehicles that can travel through the study area during the AM and PM peak travel periods. The most notable change in traffic volumes will be off peak when traffic volumes are lower.

WSDOT forecasts 2014 traffic volumes on the HOV lanes to be lower than existing volumes. This is because the traffic model assumes a change in the vehicle occupancy requirement to use the HOV lanes from the current "two or more" occupants per vehicle to "three or more" occupants per vehicle.

How will the project affect future freeway operations on I-405 ?

When the project opens to traffic in fall 2009, the Bellevue Nickel Improvement Project will increase the number of vehicles able to travel through the study area and improve travel speeds by as much as 15 miles per hour during the AM and PM Peak Hours (Exhibit 5.1-2). However, as traffic volumes increase over time in response to regional population and employment growth, vehicle throughput and travel speeds on I-405 will decrease during the AM and PM peak travel periods.

Exhibit 5.1-2. Traffic Conditions in the Future



For both the AM and PM peak hours, the Bellevue Nickel Improvement Project delivers more benefits during the time before and the time after the Peak Hours when traffic volumes are lower. Compared to the No Build Alternative, the Bellevue Nickel Improvement Project will delay the onset of congestion during the peak travel periods and clear congestion more quickly after the peak travel periods.

How will the project improve safety?

The Bellevue Nickel Improvement Project will add an additional lane northbound and southbound on I-405. The project will improve safety by reducing congestion-related accidents as compared to the No Build alternative.

Additionally, the project will improve safety at the I-90 connection to northbound I-405 because the eastbound and westbound I-90 ramps will no longer merge. With the Bellevue Nickel Improvement Project, each of these ramps will become an additional lane on I-405 northbound. This change will reduce the potential for rear-end and sideswipe collisions at this location as compared to the No Build alternative. Removing the merge will also improve safety on I-90. The improvement will decrease the number of rear-end accidents with vehicles lining up on I-90 to use the ramps to northbound I-405.

The project design includes constructing a new Wilburton Tunnel on southbound I-405 and widening the existing narrow shoulders through the tunnel to satisfy current design standards. This improvement will reduce the potential for drivers to collide with fixed objects.

The Bellevue Nickel Improvement Project will not change traffic volumes at local street intersections.

How will the project affect transit service and HOV trips?

For both the 2014 No Build and Build Alternatives, the forecasts assume that the HOV lanes will operate differently than they do today (i.e., change from the current requirement of two or more occupants per vehicle, to a requirement of three or more occupants per vehicle).

With the future HOV lane-occupancy designation of three or more occupants per vehicle, the HOV lanes will perform well for

both the Build and No Build Alternatives. The HOV lanes will operate close to free-flow conditions of 60 miles per hour.

The Build Alternative extends the southbound I-405 HOV off-ramp to westbound I-90 northwards to the Southeast 8th Street on-ramp. This HOV lane is on the west side of the freeway. The Build Alternative also modifies the intersection of the I-405 southbound ramps with Southeast 8th Street. An HOV right-turn lane from eastbound Southeast 8th Street to the I-405 southbound on-ramp would be moved from the current location to the outside of the ramp. This modification provides a direct HOV connection from the Southeast 8th Street on-ramp to the westbound I-90 HOV lane via I-405.

The extension of the southbound I-405 HOV off-ramp to westbound I-90 northwards to Southeast 8th Street will improve transit travel time for that movement. The remaining transit peak-hour travel times will be similar for the Build and the No Build Alternatives in 2014 and 2030.

How will local surface streets operate in the future?

Our traffic model calculated future levels of congestion on local surface streets in the study area for both the Build and No Build alternatives. The model predicts that the Build Alternative will not affect surface street traffic volumes during the 2014 AM and PM Peak Hours. Therefore, the levels of congestion expected with the Build Alternative will be approximately the same as with the No Build Alternative. With either alternative, local surface streets in the study area will operate with higher congestion levels than today.

How will the project affect bicycle and pedestrian facilities?

The project will not have any long-term effects on bicycle or pedestrian facilities. The project will reconstruct the intersection of the I-405 southbound ramps at Southeast 8th Street. On eastbound Southeast 8th Street, we will add an exclusive HOV right-turn lane to the I-405 southbound on-ramp. During construction, there may be temporary sidewalk closures in this area. If a sidewalk is closed, we will provide an alternate route for pedestrians through the construction area.

How will construction affect transportation?

Construction of the Bellevue Nickel Improvement Project will require temporary realignment, shifting, and/or closure of lanes on I-405. The duration, degree, and length of any traffic restriction will be limited to when it is absolutely necessary to provide safety for both the traveling public and construction personnel.

We will develop a conceptual staging plan to illustrate how construction will occur with minimal disruptions to existing traffic patterns and capacity on the I-405 and local surface streets within the study area. The main objectives of this plan will be to provide a safe facility during construction, maintain existing travel lanes, and streamline the construction schedule while minimizing environmental disturbance.

How will we avoid or minimize adverse effects from construction?

We will develop a comprehensive traffic management plan that will be designed to maintain traffic flow on all roadways during construction. WSDOT will prepare a traffic management plan before making any changes to the traffic flow. We will coordinate with local agencies and other projects to prepare and implement the traffic management plan prior to making any changes to the traffic flow or lane closures. We will advise the public, school districts, and emergency service providers of the changes ahead of time through a public information process.

Prior to and during construction, WSDOT will implement strategies to manage the demand on transportation infrastructure. These transportation demand management strategies will form an important part of the construction management program and will be aimed at increasing public awareness of travel options in the corridor.

Appendix B includes avoidance and minimization measures that we will incorporate into the project to address effects on traffic and transportation. No additional avoidance and minimization measures for traffic and transportation effects are necessary or proposed.

5.2 Noise and Vibration Analysis

Noise levels will increase in some locations. WSDOT will construct a new noise barrier along the east edge of I-405, north of I-90 to reduce traffic noise levels in this area.

Sound is an element of daily life that we call noise when we perceive it as unpleasant, unwanted, or disturbingly loud. We considered the effects of noise to understand the potential effect of traffic and construction noise on public health and welfare.

In this section of the EA, we consider the project's potential to cause traffic noise and noise during construction, and whether the project will include mitigation measures such as noise barriers to buffer noise-sensitive areas from the roadway.

What is our study area for this analysis?

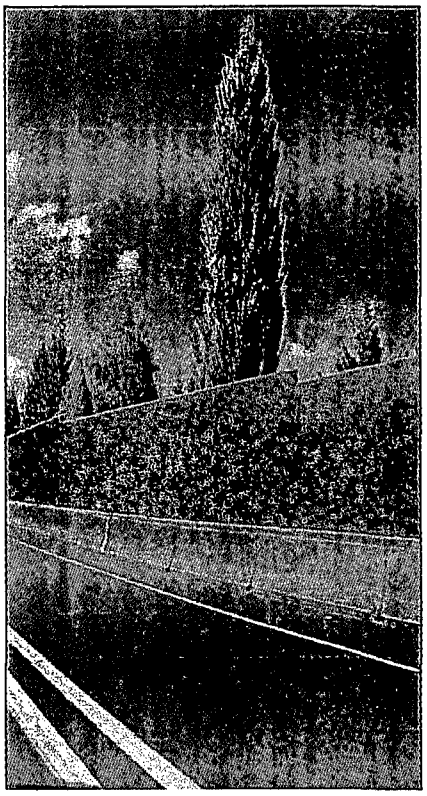
The study area for the noise analysis extends approximately 500 feet from roadway improvements associated with the project. In some special circumstances we expand the study area to include the nearest sensitive receptor as determined by best professional judgment.

How did we evaluate existing and future noise levels?

We use the FHWA Traffic Noise Model to estimate traffic noise levels. The model uses current noise levels and traffic volumes to make projections for the future. We modeled existing year (2002) and future year (2030) both with and without the project.

We modeled existing noise levels at 66 sensitive receptor locations within the study area that represent 253 residences, two hotels, and a park. Exhibit 5.2-1 shows locations of the 66 monitoring receptors and the future modeled noise effect results.

Noise regulations and guidelines are the basis for evaluating potential noise effects. For state and federally funded highway projects, traffic noise effects occur when predicted $L_{eq}(h)$ noise levels approach or exceed the noise abatement criteria (NAC) established by the FHWA, or substantially exceed existing noise levels. ($L_{eq}(h)$ is defined in the sidebar on page 5.2-5.)



An existing noise wall

Please refer to the Bellevue Nickel Improvement Project Noise and Vibration Discipline Report in Appendix M (on CD) for a complete discussion of the Noise and Vibration analysis.

What is a sensitive receptor?

We use this term to identify land uses and activities eligible for protection from freeway noise under FHWA's noise abatement criteria. Common sensitive receptors include: picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.

Exhibit 5.2-1. Modeled Receptor Noise Levels and Locations (Sheet 1 of 3)

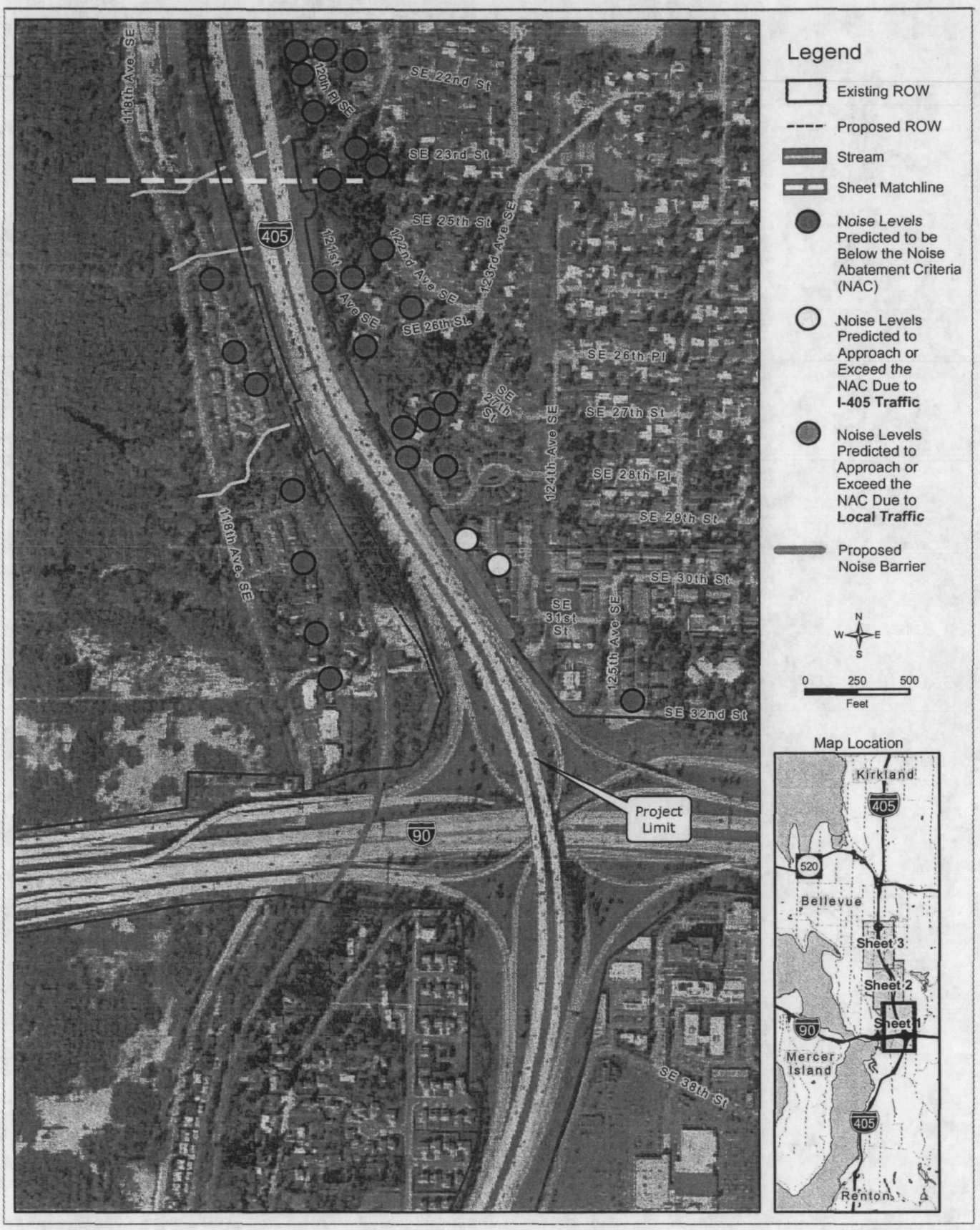


Exhibit 5.2-1. Modeled Receptor Noise Levels and Locations (Sheet 2 of 3)

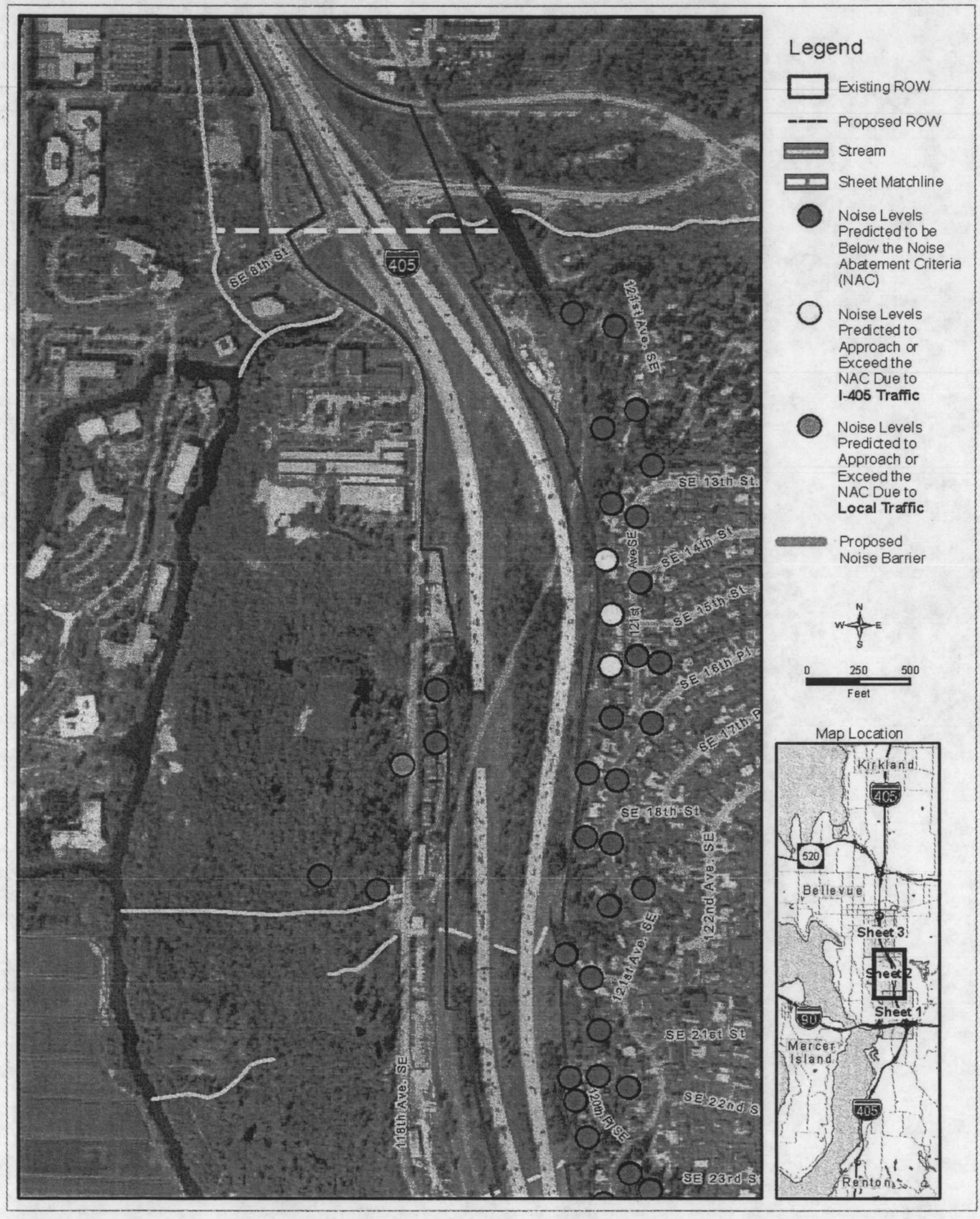
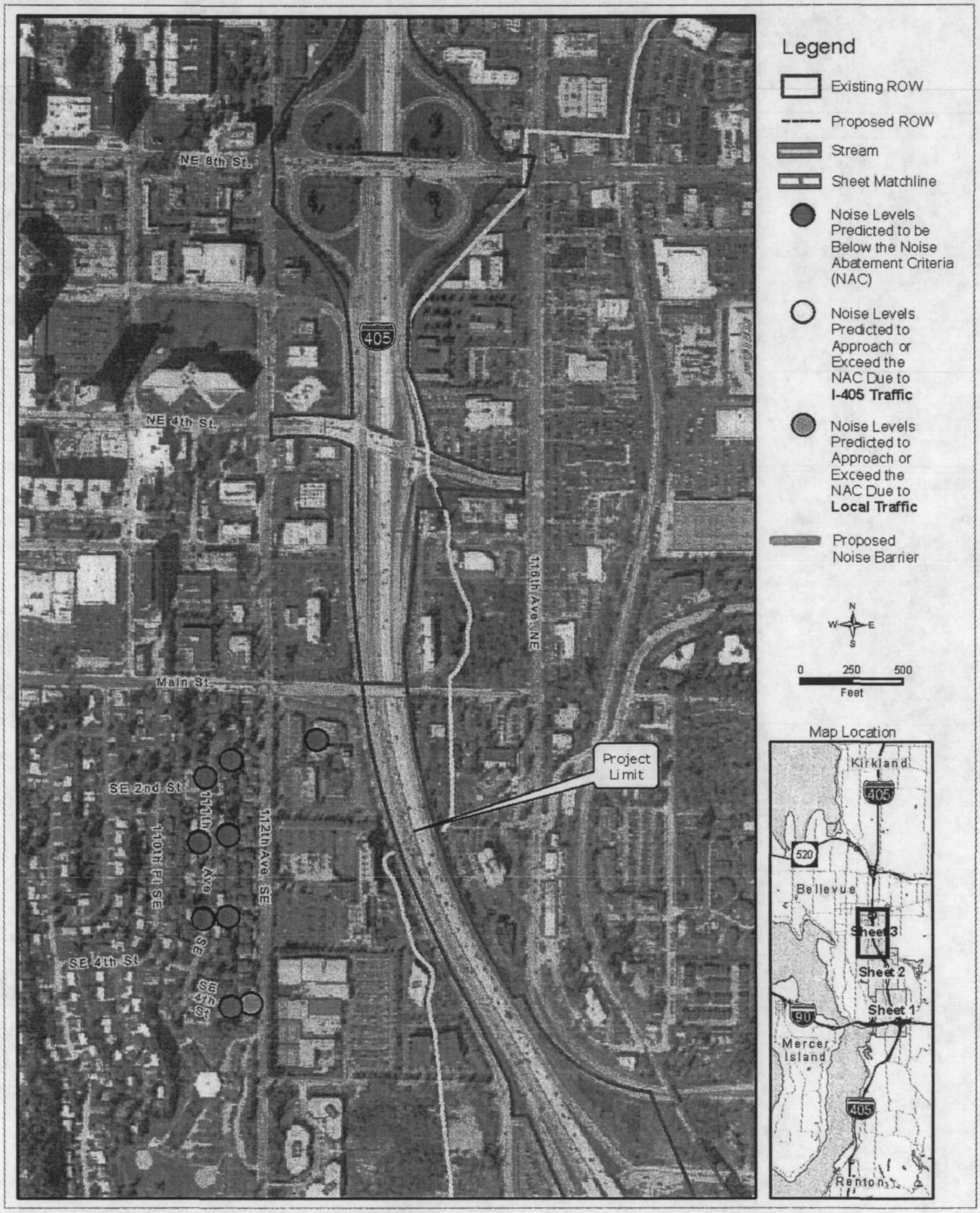


Exhibit 5.2-1. Modeled Receptor Noise Levels and Locations (Sheet 3 of 3)



Although FHWA does not define "substantially exceed," WSDOT considers an increase of 10 A-weighted decibels (dBA) or more to be a substantial increase.

WSDOT considers a noise effect to occur if predicted $L_{eq}(h)$ noise levels approach within 1 dBA of the noise abatement criteria in Exhibit 5.2-2.

Exhibit 5.2-2. FHWA Noise Abatement Criteria

Activity Category	$L_{eq}(h)$ (dBA)	Description of Activity Category
A	57 (exterior)	Lands on which serenity and quiet are of extraordinary significance and serve an important public need and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose.
B	67 (exterior)	Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals.
C	72 (exterior)	Developed lands, properties, or activities not included in Categories A or B above.
D	No criteria	Undeveloped lands.
E	52 (interior)	Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums.

Source: US DOT, 1982.

$L_{eq}(h)$

The equivalent sound level is widely used to describe environmental noise. It is a measure of the average sound energy measured during an hour.

How noisy is the study area?

WSDOT modeled noise levels of existing conditions in the project area ranging between 53 and 70 dBA. These levels range from typical suburban outdoor sound levels, between 50 and 60 dBA, to very noisy levels (above 70 dBA), that are typical of locations within 100 feet of a busy freeway.

Traffic noise from I-405 and local surface streets is the primary source of noise in the study area, with periodic air and rail noise. Modeled noise levels at 5 of the 66 sites currently approach or exceed the FHWA criteria of 67 dBA for existing conditions. These modeling results represent the loudest traffic hour of the day when volumes are heavy (but not congested) and traffic speeds remain high.

What will future noise levels be like if we do not build the project?

WSDOT noise specialists determined that noise levels for the No Build Alternative would increase by 0 to 2 dBA. Noise levels at five locations would approach or exceed the NAC of 67 dBA. All of these sites currently approach or exceed the NAC.

How will the project affect noise levels in the project area?

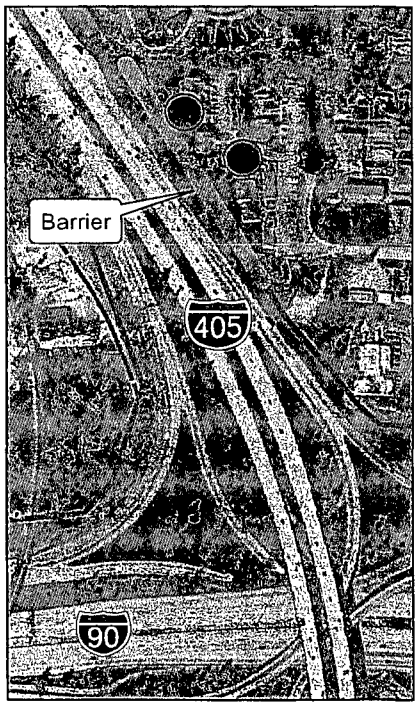
For the Build Alternative, modeling indicates that without mitigation, noise levels in 2030 will approach or exceed the NAC of 67 dBA at seven locations, representing Mercer Slough Park and 27 residences.

Noise levels at two receptors located adjacent to 118th Avenue Southeast and 112th Avenue Southeast, will exceed the NAC due to noise caused by local traffic on 118th Avenue Southeast and 112th Avenue Southeast respectively. Because local traffic would be the primary cause of these future noise effects, and the results do not relate to the I-405 Bellevue Nickel Improvement Project, we cannot mitigate the adverse noise effects by reducing traffic noise from I-405.

Even with the noise abatement measures included as part of the Bellevue Nickel Improvement Project, noise levels at Mercer Slough Park and four locations representing 15 residences in the Woodridge Neighborhood will still approach or exceed the NAC criterion in 2030.

How will we minimize the effects of traffic noise?

Exhibit 5.2-3. Location of New Noise Barrier



FHWA regulations (23 CFR 772) specify that when agencies planning a project identify noise effects, they must evaluate abatement (mitigation) measures to reduce the effects. Agencies must incorporate all noise abatement measures that they determine to be "feasible and reasonable," into the project design before FHWA will approve the project. For more information on the criteria used to determine what noise abatement measures are "feasible and reasonable," please see the Noise and Vibration Discipline Report (Appendix M) appended to this EA.

To minimize the effects of traffic noise along I-405 northbound in the neighborhood of Factoria Square, we will construct a new noise barrier along the east edge of the I-405 ROW approximately 1,000 feet north of the I-90 interchange (see Exhibit 5.2-3). At this location, the noise barrier will be approximately 16 feet high and 725 feet long. The noise barrier will reduce traffic noise levels by 11 dBA, a level below the federal noise criteria.

How will project construction affect noise levels?

Roadway construction activities that generate noise include clearing, cut-and-fill (grading) activities, removing old roadways, importing fill, and paving.

Internal combustion engines will generate the most prevalent noise source during construction. Engine-powered equipment includes earth-moving equipment, material-handling equipment, and stationary equipment. Truck noise could also affect area residents because trucks will also operate outside the project site. Other construction noise sources will include impact equipment and tools such as pile drivers.

Construction noise will be intermittent and construction noise levels will depend on the type, amount, and location of construction activities. The type of construction methods will establish the maximum noise levels of construction equipment used. The amount of construction activity will define how often construction noise will occur. The nearness of construction equipment to adjacent properties will affect the noise levels of the receptor. Maximum noise levels of construction equipment for the project will be similar to typical maximum levels presented in Exhibit 5.2-4 on the following page.

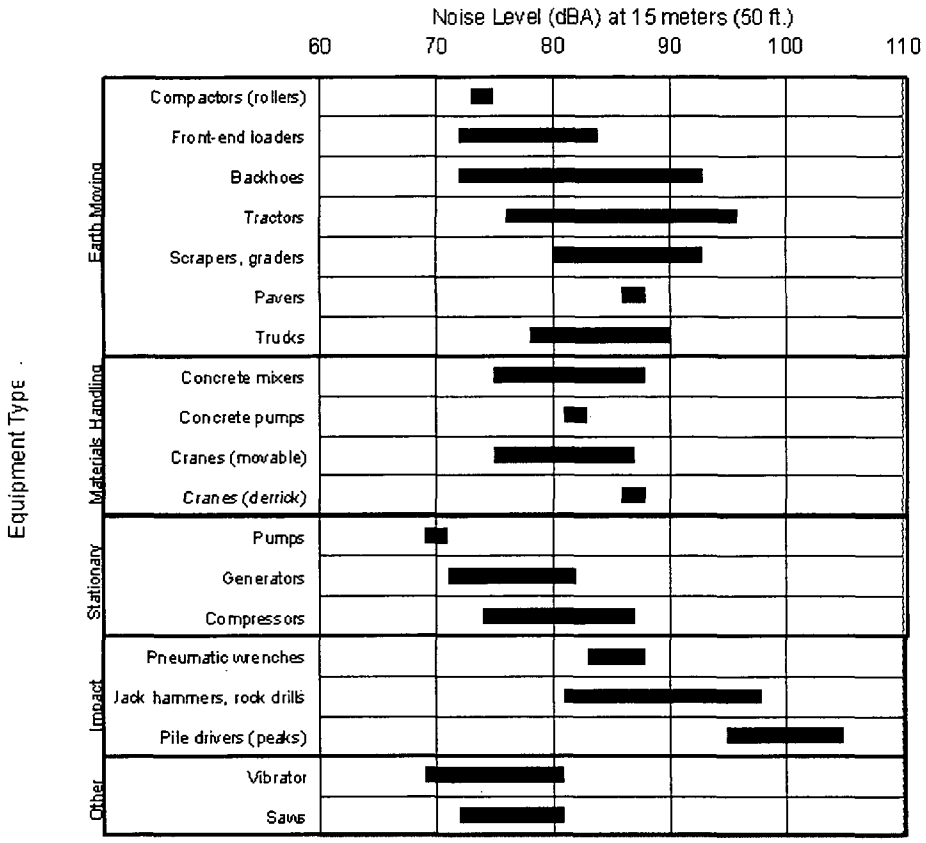
How can we minimize effects from construction noise?

We have included all avoidance and minimization measures that we will incorporate into the project in Appendix B.

What is the potential for vibration during construction?

During construction, various activities will create vibrations. Heavy construction equipment, such as large bulldozers and loaded trucks, frequently generate vibrations that can be felt as far as 25 feet away. Vibrations from pile driving can damage fragile structures as far as 100 feet away. People will feel minor ground movement at greater distances, but because the construction activities are temporary and there is negligible potential for damage to fragile structures, this will not constitute an effect.

Exhibit 5.2-4. Typical Construction Noise Levels



Source: EPA, 1971 and WSDOT, 1991.

How will we minimize the potential effects of vibration?

Construction crews will not conduct any pile driving within 100 feet of fragile structures. Use of large bulldozers and vibratory rollers will be limited to beyond 25 feet from fragile structures.

5.3 Fisheries and Aquatic Resources

WSDOT designed the Bellevue Nickel Improvement Project to avoid and minimize effects on fish and aquatic habitat. All stormwater runoff from new paved areas will be treated for water quality, including enhanced treatment for suspended solids and metals.

Roadway construction will cover a portion of a stream located in the median of the I-405 roadway. WSDOT will create 500 feet of new stream channel and provide 1.2 acres of new streamside vegetation and 1 acre of enhanced stream buffer along the newly created stream channel.

Please refer to the Bellevue Nickel Improvement Project Fisheries and Aquatic Resources Discipline Report in Appendix P (on CD) for a complete discussion of the Fisheries and Aquatic Resources analysis.

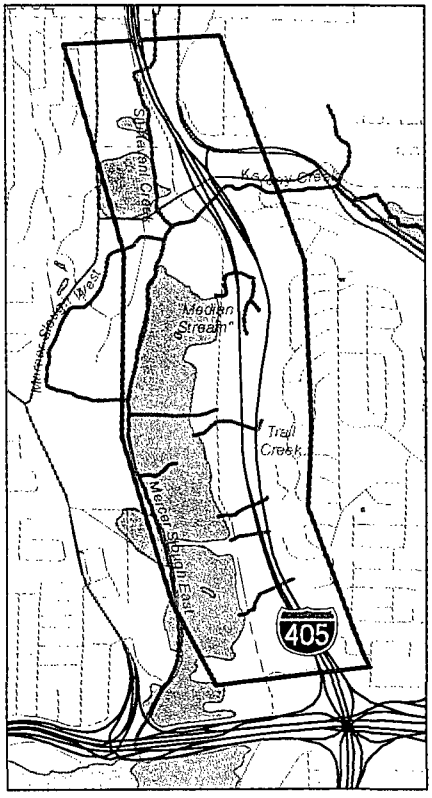
Fish and aquatic resources, such as streams, rivers, and lakes, and the organisms that inhabit those environments, are important elements of our ecosystem. People widely recognize the importance of these resources for food, livelihood, employment, income, and cultural value. Understanding how the project might affect fish and aquatic habitat and how to avoid or minimize those effects is a critical part of the environmental review process.

What is our study area for this analysis?

The study area for fisheries and aquatic resources includes streams, sloughs, and associated streamside habitats (see Exhibit 5.3-1). Streams and sloughs that cross I-405 or occur in the vicinity of the study area include Kelsey Creek, Sturtevant Creek, Trail Creek, Mercer Slough, and several unnamed tributaries to the Mercer Slough wetlands.

We reviewed existing information and conducted stream surveys to determine habitat conditions as far as 300 feet upstream and 0.25 mile downstream of the highway right of way.

Exhibit 5.3-1. Study Area Boundaries



What are the general habitat characteristics of the study area?

In general, residential, commercial, and industrial land uses have substantially altered the rivers and streams in the study area from their natural state. These alterations have included bank hardening, reducing or removing streamside vegetation, straightening stream channels, and removing fallen trees. The vegetation surrounding these waterbodies has also changed significantly. A mix of immature native vegetation and non-native invasive plant species has replaced what was once predominantly mature native vegetation.

What fish and aquatic species occur in the study area?

Anadromous vs. Resident Fish

Anadromous fish are born in freshwater streams, rivers, or lakes, spend their adult phase in the ocean, and return to their birth waters to spawn.

Resident fish spend their entire lives in freshwater systems and do not migrate into saltwater environments.

Fish species found in the area include both anadromous and resident salmonids and a variety of other resident fish. Native species of salmonids found in the study area include Chinook, coho, chum, and sockeye salmon, steelhead trout, and sea-run cutthroat. Resident rainbow and cutthroat trout also use the waterbodies in the study area.

Chinook salmon use the study area primarily for up- and downstream migration and rearing; however, there is also some limited spawning habitat in Kelsey Creek. No one has documented use of the study area by bull trout and dolly varden. Chinook salmon, bull trout, and dolly varden are all currently listed as threatened species under the ESA.

Other fish species likely to be found in the study area include three spine stickleback, longnose dace, speckled dace, longfin smelt, prickly sculpin, riffle sculpin, reticulated sculpin, shorthead sculpin, torrent sculpin, largescale sucker, peamouth chub, bluegill, and redside shiner, Pacific lamprey, river lamprey, and western brook lamprey.

Would the No Build Alternative benefit fisheries and aquatic resources?

If the project were not built, sloughs and streams in the study area would not experience any physical changes from construction activities; however, routine maintenance activities such as mowing or brush removal would continue and may disturb streamside vegetation.

The untreated stormwater runoff that currently enters these waterbodies from I-405 and local streets would continue. Untreated stormwater can affect a variety of aquatic organisms and can reduce the overall health of an ecosystem over time.

How will the project affect fisheries and aquatic resources?

Effects to fisheries and aquatic resources can result from removal of streamside vegetation, and stormwater runoff that could affect stream water quantity and quality and, in turn, affect fish and fish habitat.

Construction In or Over Existing Streams

The project will directly affect Median Stream, which flows in the I-405 median, crosses I-405 via a series of concrete culverts, flows to and alongside Southeast 118th Avenue, and discharges into the Mercer Slough wetlands. Median Stream may support resident, local non-ESA fish species.

During construction, we will realign the southbound I-405 roadway to the east into the existing median to allow for the construction of a new 7-lane tunnel. As a result, we will permanently cover approximately 500 linear feet, and approximately 0.25 acre of Median Stream.

We will direct the existing flow of Median Stream into a new culvert under the realigned southbound I-405 roadway where it will discharge on the west side of I-405.

In addition to the new culvert for Median Stream, we will replace three other existing culverts that cross I-405 within the study area. These culverts are located at MP 11.7 (unnamed creek), MP 11.8 (unnamed creek), and MP 12.03 (Trail Creek).

Streamside Vegetation Removal

The project will permanently remove approximately 1.7 acres of streamside vegetation along 500 linear feet of Median Stream. Existing vegetation in this area is degraded and composed mostly of Himalayan blackberry, upland grasses, and a few immature native deciduous trees. We will remove no other streamside vegetation as part of this project.

Development has altered many of the functions provided by streamside vegetation (such as large woody debris, contribution of other organic material, fish cover, bank stabilization, and

stream temperature regulation) from natural conditions. The project will not substantially affect them further.

How will project construction affect fisheries and aquatic resources?

Project construction will have several temporary effects on fisheries and aquatic resources. These temporary effects, discussed in the sections below, primarily relate to construction-related in-water disturbances and stream diversions, in-stream deposit of sediments, and streamside vegetation effects.

Direct In-Stream Disturbance and Stream Diversions

Ordinary High Water Mark

The elevation marking the highest water level that is maintained for a sufficient time to leave evidence on the landscape, such as a clear, natural line impressed on the bank, changes in soil character, or the presence of litter and debris. Generally, it is the point where the natural vegetation changes from predominately aquatic to upland species.

Construction activities over, in, or near a stream can disturb fish, other aquatic species, and aquatic habitat. Except where absolutely necessary (as in the case of culvert replacements or extensions), construction equipment will not enter streams below the ordinary high water mark (OHWM) and we will remove water from within the stream channel prior to placing new or lengthening existing culverts. Dewatering and stream diversions could strand fish and create temporary barriers to fish movement.

Before starting in-water work, we will isolate any fish that may exist and remove them from the work area using approved methods. We will remove water from streams during the driest time of the year when flows are low. We will limit in-water construction to approved work windows, as defined by permit conditions, and we will complete this work in the shortest time possible. These measures should minimize adverse effects to any fish and other aquatic species from project construction.

In-Stream Sedimentation

Earth-disturbing construction activities could introduce fine sediments into streams in the study area through runoff and erosion. Excessive fine sediment entering the streams could cause fish eggs in the gravel to be smothered, reduce the amount of food available for fish, and create conditions where visual predators, such as coho salmon, have reduced capacity to capture prey. In addition, certain types of sediments can damage the gills of fish, leading to their death (Lake and Hinch 1999).

The potential for erosion and sedimentation will be highest in Median Stream where construction activities will occur within and directly adjacent to the stream. We will address potential effects from sedimentation by the following measures:

- The project will use retaining walls and steep side slopes to minimize effects to streams, wetlands, and other critical areas. Except where absolutely necessary, construction equipment will not enter streams below the OHWM. We will locate staging and stockpiling areas well away from streams.
- We will develop a TESC plan before initiating construction of the project. We will implement the plan throughout all phases of construction.
- We will remove water from streams prior to replacing or lengthening culverts and will strictly follow conditions of all applicable permits and approvals.
- We will implement, monitor, and maintain appropriate BMPs (see Appendix B) to reduce the risk of erosion, and to reduce or minimize opportunities for sediment to enter waterbodies in the vicinity of the project.

Even with BMPs, short-term effects to water quality from sediment (such as temporary increases in stream cloudiness) are possible, particularly during storm events. We expect these effects will be small in magnitude and not likely to harm fisheries and aquatic resources in the study area.

Streamside Effects

During construction, we will remove streamside vegetation located within 10 feet of any new permanent structures or toes of slopes. We will temporarily disturb 0.1 acre of streamside vegetation during construction. We will replant all temporarily cleared or disturbed areas with appropriate native vegetation.

How will the project affect federally listed species and federal species of concern?

The "federally listed" aquatic species known or presumed to be in the study area are chinook salmon and bull trout. The only federal aquatic species of concern known to inhabit the study area is coho salmon. We know Chinook and coho salmon use Mercer Slough and Kelsey Creek at various life stages. We are also aware that coho salmon use Sturtevant Creek.

Though bull trout presence in the study area is likely limited due to the lack of quality habitat for this species, the USFWS has designated Lake Washington and associated Mercer Slough, Sturtevant Creek, and Kelsey Creek as proposed bull trout critical habitat.

No in- or overwater construction related to this project will occur in Mercer Slough, Sturtevant Creek, or Kelsey Creek. We will use all appropriate and available BMPs to limit effects from construction in the vicinity of these waterbodies.

How will we avoid or minimize potential adverse effects on fish and other aquatic species or aquatic habitat?

We have designed this project to avoid and minimize adverse effects on fish, other aquatic species, and aquatic habitat. Where possible, the project design locates the new roadway and associated roadway structures away from existing fish habitat to prevent permanent habitat effects. In cases where avoidance was not possible, the project design minimized effects to aquatic habitat.

Throughout the study area, the project design includes retaining walls and steep side slopes that limit direct effects to streams and streamside vegetation. Although existing runoff from the study area receives treatment only at the I-405/Southeast 8th Street interchange and along portions of the project area by flowing through grass-lined ditches, all stormwater runoff from new impervious surfacing will be treated for water quality, including enhanced treatment for suspended solids and metals.

How will we minimize construction effects?

Appendix B includes avoidance and minimization measures that we will incorporate into the project to address effects on fisheries and aquatic resources. We highlight key measures below.

We will restrict all in-water work to authorized construction periods as defined by appropriate permitting agencies (WDFW, NMFS, and USFWS) to minimize negative effects to fish species by preventing construction activities during periods of fish migration or spawning.

Throughout construction, we will use appropriate erosion BMPs to avoid unintentional discharges of sediment from bridge, culvert, and roadway construction. We will define specific BMPs for use as part of a TESC plan that will define BMPs for clearing, removing vegetation, grading, ditching, filling, compacting embankments, or other excavation activities. BMPs used in the plan will control sediment input from all vegetation- or ground-disturbance activities.

We will restore temporarily cleared areas to pre-construction grades and replant the areas with appropriate native vegetation, including the area built upon and any staging areas we use.

BMPs that we could use during construction include the following:

- Using effective erosion control measures, such as filter-fabric fence, straw mulch, and plastic sheeting to prevent silt and soil from entering surface waters (including wetlands).
- Spreading grass seeds on all bare soil areas following grading.
- Clearly labeling streams and stream buffers on the construction plans and in the field.
- Marking clearing limits with orange barrier fencing wherever clearing occurs in or near critical areas.
- Locating staging areas and equipment storage areas away from sensitive areas such as streams and wetlands.
- Refraining from vehicle refueling and maintenance activities within 100 feet of streams and wetlands.
- Minimizing the duration of in-water work (below the OHWM) and strictly adhering to the appropriate fish work windows, as dictated by applicable permits.
- Prohibiting waste and excess materials from disposal or storage below the OHWM.
- Complying with Washington State's surface water quality standards (Chapter 173-201A WAC), which specify a mixing zone beyond which water quality standards cannot be exceeded. Monitoring of water quality will occur during construction to ensure compliance with Ecology's standards to protect fish and aquatic life.
- Preparing a Spill Prevention Control and Countermeasures (SPCC) plan for the project prior to beginning any construction, and maintaining a copy of the plan with any updates at the work site.
- Containing excavated sediment in appropriate containers to avoid discharge to surface water, and transporting the contained sediments to an approved disposal site.
- Curing concrete before contact with surface water as required by WAC 110-220-070(1)(g) to avoid increased alkalinity that can occur when fresh concrete contacts water.

Mixing Zone

A limited area where initial dilution of a discharge takes place.

- Regularly checking items such as fuel hoses, oil drums, and oil and fuel transfer valves and fittings for drips or leaks to prevent spills into surface water.
- Keeping the illuminated area and intensity of nighttime lighting to the minimum that is necessary for the intended purpose. Workers will direct lights onto the work areas and away from the water.

How will we mitigate for unavoidable negative effects to fish or aquatic habitat?

We have developed a preliminary stream mitigation plan for Median Stream that includes onsite habitat restoration and creation.

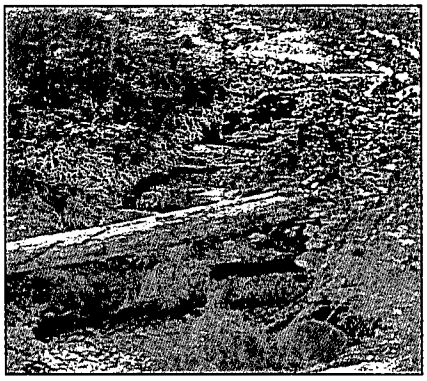
The preliminary stream mitigation plan includes the following objectives shown in Exhibit 5.4-2 in the Surface Water, Water Quality, and Floodplains section of this EA.

- Create approximately 500 linear feet of new stream channel between southbound I-405 and 118th Avenue Southeast.
- Plant approximately 1.2 acres of native streamside vegetation along the newly created stream channel.
- Enhance approximately 0.9 acre of stream buffer by removing non-native plant species and replacing with native streamside vegetation.

5.4 Surface Water, Water Quality, and Floodplains

Realignment of the southbound lanes will cover a portion of a stream located in the median of the I-405 roadway. WSDOT will create 500 feet of new stream channel and provide 1.2 acres of new streamside vegetation and 1 acre of enhanced stream buffer along the newly created stream channel.

The Bellevue Nickel Improvement Project will create about 10.3 acres of new roadway surface. WSDOT will provide stormwater treatment for 17 percent more area than is being created.



Stream with large woody debris

Please refer to the Bellevue Nickel Improvement Project Surface Water, Water Quality, and Floodplains Discipline Report in Appendix N (on CD) for a complete discussion of Surface Water, Water Quality, and Floodplains.

What is our study area for this analysis?

We defined the study area as the area in which surface water and floodplains could show effects from highway construction and operation. The study area includes the highway right of way between MP 11.2 at the southern end and MP 13.2 at the northern end. Surface water and floodplains located as far as 300 feet upstream of the highway right of way (maximum distance anticipated for upstream effects) and 0.25 mile downstream (maximum distance anticipated for effects due to both construction and future stormwater events) are also included in the study area.

What surface water occurs in the study area?

Surface water within the study area includes streams, wetlands, and Mercer Slough, a backwater channel that connects to Lake Washington (see Exhibit 5.4-1).

All study area streams ultimately drain to Mercer Slough or its associated wetlands and then to Lake Washington. The watershed for Mercer Slough covers an area of 10,871 acres, and is composed of 10 sub-basins. Most of the study area is located in two sub-basins, Mercer Slough and Sturtevant Creek . A small portion of the project drains to the Kelsey Creek sub-basin.

Fish ladder at the outlet of the Kelsey Creek/Mercer Slough culverts

Inlet to Kelsey Creek/Mercer Slough culverts

Kelsey Creek (MP 12.72) and Sturtevant Creek (MP 13.15) are the largest streams in the study area. Kelsey Creek passes under I-405 through two parallel culverts. Downstream of these culverts, the stream becomes Mercer Slough. Kelsey Creek is the only stream crossing I-405 in the study area that is passable by fish (WSDOT 2005).

One of the culverts discharging Kelsey Creek to Mercer Slough has a fish ladder to improve fish migration to upstream watersheds.

Sturtevant Creek passes under I-405 in two culverts located at MP 13.15. Sturtevant Creek then flows south, parallel to 114th Ave Southeast and discharges into Mercer Slough. Sturtevant Creek is outside of the project construction area and the project will not directly affect it.

Three small, unnamed streams cross the project area between MP 11.5 and MP 11.8 via culverts under I-405 and local streets. They drain to Mercer Slough where they cease to have defined channels and become stream flows that either infiltrate into the soil or spread out into a nearby wetland.

Trail Creek and Median Stream are two additional small channels that cross the project area between MP 12.0 and MP 12.5 and drain to Mercer Slough west of the project. Trail Creek crosses I-405 between MP 12.0 and 12.1. Median Stream flows in the I-405 median, crosses I-405 via a series of culverts near MP 12.4, and flows to and along Southeast 118th Avenue. As with the unnamed streams, Trail Creek and Median Stream lose channel definition in the wetland complex of Mercer Slough.

Water Quality

Water quality refers to the physical and chemical properties of water that affect its capability to support beneficial uses. Federal, state, and local agencies regulate surface water quality to maintain a variety of beneficial uses, including domestic water supply, irrigation, fish and shellfish rearing, recreation (such as swimming and sport fishing), commerce and navigation, and wildlife habitat. Source: Chapter 173-201A WAC.

What is the quality of surface water in the study area?

Ecology has established state-wide water quality standards for temperature, dissolved oxygen, stream flow, and a wide variety of polluting substances in surface water (WAC 173-201A). Several agencies, including Ecology, have been monitoring water quality in Kelsey Creek, Mercer Slough, and Sturtevant Creek for a number of years. The monitoring has revealed a variety of water quality problems in these water bodies.

Kelsey Creek

Kelsey Creek is on the Ecology 303(d) list of water quality impaired surface water due to high temperatures, low levels of dissolved oxygen, and the presence of fecal coliform bacteria (Ecology 2005). In 1979 and 1980, a number of pesticides including DDT, dieldrin, and heptachlor were detected in Kelsey Creek. The high temperatures, low levels of dissolved oxygen, nutrient concentrations, and bacterial pollution in Kelsey Creek are fairly typical of streams in urban areas.

What is the Ecology 303(d) list?

The 303(d) list identifies surface water body segments (lakes, streams, rivers, and ponds) with degraded water quality. Ecology assembles available water quality data and publishes this list, as required under section 303(d) of the federal Clean Water Act (40 CFR 130.7, as revised July 1, 2003).

Mercer Slough

Mercer Slough is on the state 303(d) list for high temperatures, low levels of dissolved oxygen, and the presence of fecal coliform bacteria (Ecology 2005). Dissolved oxygen depletion is fairly common in streams, such as Mercer Slough, that are slow-moving and support dense growth of submerged vegetation or algae. Although highway runoff contributes to the pollutant load of Mercer Slough (as well as tributaries in the study area), highway runoff is a relatively small fraction of the total pollutant load of Mercer Slough (approximately 2 percent of the load of phosphorus, nitrogen, chemical oxygen demand, and suspended solids).

Sturtevant Creek

Water samples from Sturtevant Creek in the early 1990s revealed relatively high levels of suspended solids, turbidity (cloudiness), oils, greases, petroleum hydrocarbons, and chemical oxygen demand compared to other Bellevue streams (City of Bellevue Utilities Department 2003). The sources of these pollutants were not identified.

Why do we need to consider floodplains?

Floodplains are important because they store floodwaters during high flow, offsetting flooding of other areas downstream. When development or natural processes (such as landslides or deposit of sediment) encroach on floodplains, there may be changes in the speed of water passing through streams, bank erosion, or location of flooding that can cause damage to habitat or human development elsewhere along the stream.

Exhibit 5.4-1. Surface Water and Floodplains, MP 11.1 to 11.9 (Sheet 1 of 3)

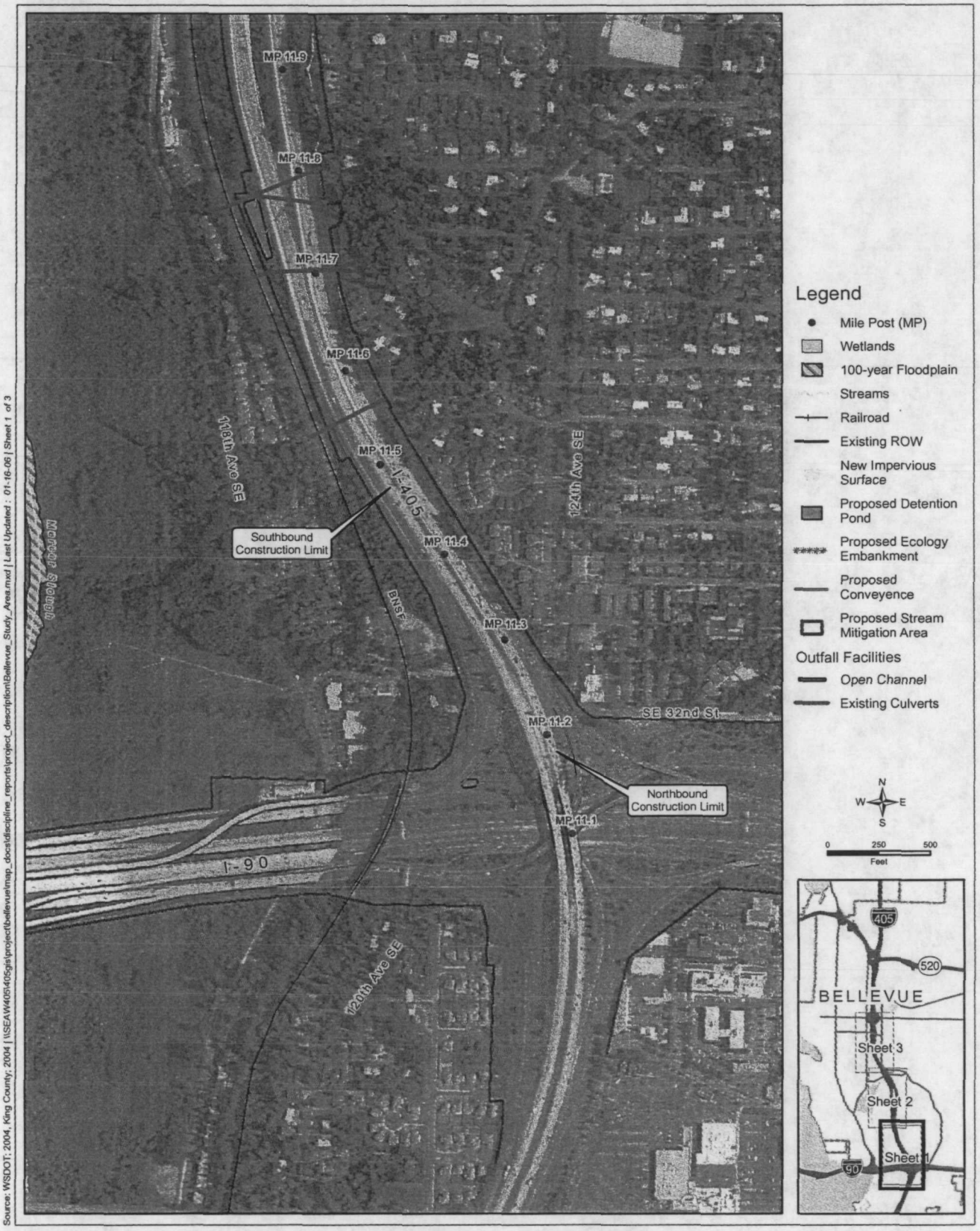


Exhibit 5.4-1. Surface Water and Floodplains, MP 11.8 to 13.0 (Sheet 2 of 3)

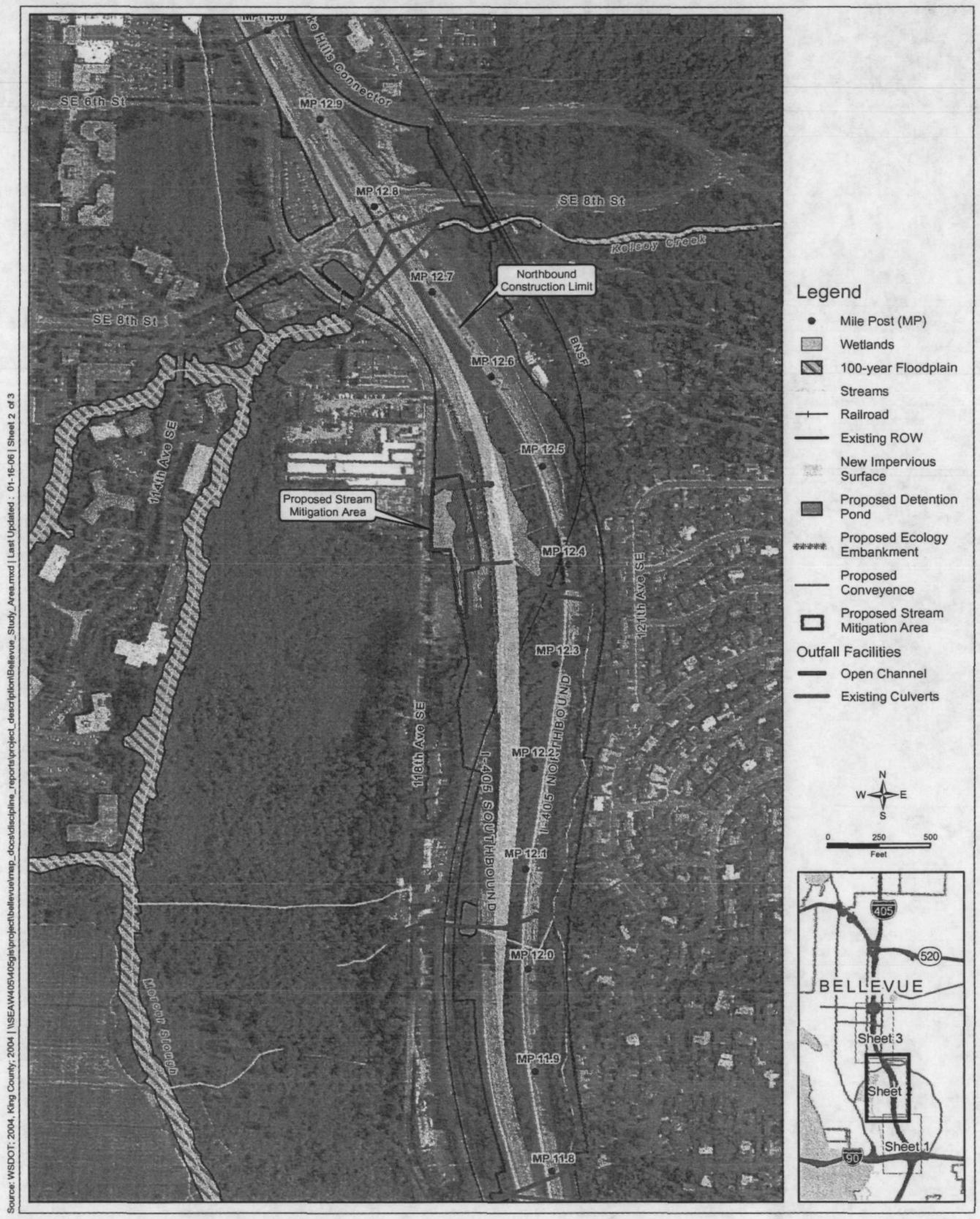
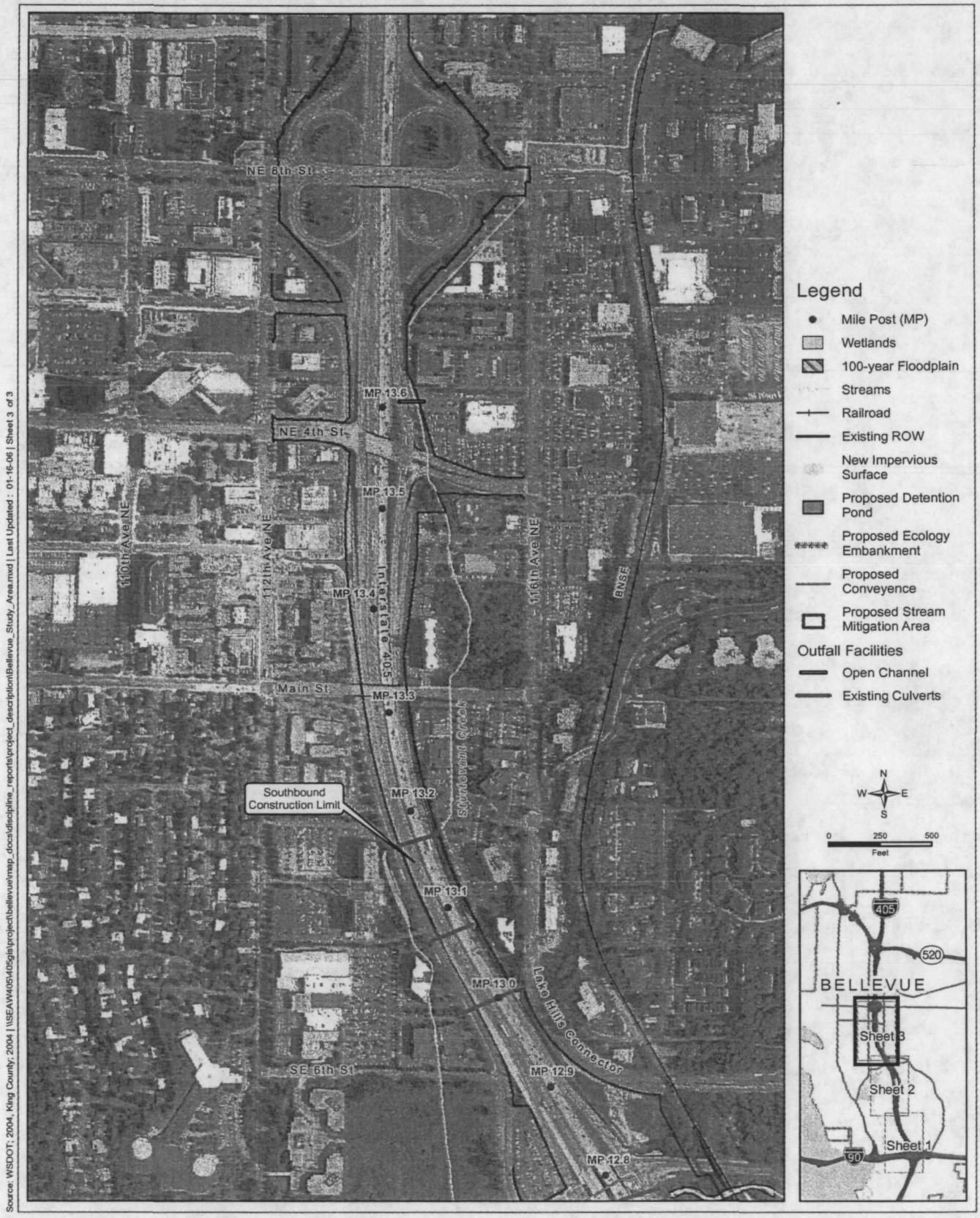


Exhibit 5.4-1. Surface Water and Floodplains, MP 12.8 to 13.6 (Sheet 3 of 3)



What flood hazard and floodplain areas occur in the project vicinity?

There are no known flood hazard areas located within the project area. The nearest flood hazard areas are the floodplains associated with Kelsey Creek upstream of the project area and Mercer Slough downstream of the project. The elevation of I-405 is well above the floodplain elevation of Kelsey Creek, and the floodplains associated with Mercer Slough are located downstream of the project. Other streams in the study area are too small and confined to have considerable floodplain areas.

How will the project affect floodplains?

The Bellevue Nickel Improvement Project will not encroach into any floodplain areas associated with Kelsey Creek, Mercer Slough, or other stream channels. The project will increase surface areas within the project area that cannot be penetrated by water; however, we will install a series of stormwater detention and treatment ponds connected to the floodplain that will lessen flows. In addition, since the elevation of Lake Washington controls the base flood elevation at Mercer Slough, the increase in peak flow rates of the project will not affect downstream floodplain elevations or area.

How will the project affect surface water and water quality?

Surface Water

Highways can affect water quality in three ways:

- Vehicles can leave deposits such as dust particles, hydrocarbons, and metals that can wash from the road surface to surface water during rainstorms.
- Highway right of way maintenance practices can contribute contaminants such as herbicides used to control invasive vegetation along roadside areas.
- Auto or truck accidents can produce chemical or fuel spills.

Currently, rain that falls on I-405 within the study area flows to road drains that discharge to storm sewers. There is a stormwater pond in the southwest quadrant of the I-405/Southeast 8th Street interchange that treats 2 acres of impervious surface area from I-405 in the vicinity of Southeast 8th Street. Otherwise, storm sewers discharge

untreated runoff into streams, wetlands, and ditches west of the highway.

The project will directly affect only one stream in the study area, Median Stream. During construction, we will realign the southbound I-405 roadway to the east into the existing median to allow for the construction of a new 7-lane tunnel. As a result, we will permanently cover approximately 500 linear feet, and approximately 0.25 acre, of Median Stream.

We will direct the existing flow of Median Stream into a new culvert under the realigned southbound I-405 roadway where it will discharge on the west side of I-405.

In addition to the new culvert for Median Stream, we will replace three other existing culverts that cross I-405 within the study area. These culverts are located at MP 11.7 (unnamed creek), MP 11.8 (unnamed creek), and MP 12.03 (Trail Creek).

Water Quality

The Bellevue Nickel Improvement Project will create approximately 10.3 acres of new roadway surface within the study area. This will result in a slight increase in pollutant loading to stormwater discharged from the highway. The increased pollutant load will amount to only a small fraction of the pollutant load for the entire Mercer Slough watershed. With the Bellevue Nickel Improvement Project, the Mercer Slough basin pollutant loads will increase by less than 1 percent.

How would the No Build Alternative affect surface water, floodplains, and water quality in the study area?

Under the No Build Alternative, the volume of runoff and pollutant loading would be the same as under existing conditions and there would be no effect on floodplains. Because the No Build alternative would not increase impervious surface area, there would be no change in stormwater runoff volume generated in the study area, or in the way that we manage runoff. Runoff water quality would also be the same as under existing conditions since the pollutant-generating surface area would be unchanged.

How will project construction affect surface water, water quality, and floodplains?

Using standard construction BMPs (see Appendix B), the project should not affect surface water, floodplains or water quality. The Bellevue Nickel Improvement Project will include replacement of three culverts and installation of a new culvert to carry Median Stream across the southbound lanes of I-405. We expect that the new culverts will maintain or improve channel conditions by maintaining or increasing the capacity of these crossings.

As with any in-stream construction, replacing and installing these culverts will cause a temporary localized increase in stream turbidity (cloudiness) either during construction or after we route flow to the new culvert immediately following construction. BMPs, including project timing (to coincide with low-flow conditions), stream diversion during construction, and isolation of the work area during construction, will minimize the extent, duration, and intensity of these effects. We discuss potential effects to fish in Section 5.3, "Fisheries and Aquatic Resources."

The Bellevue Nickel Improvement Project will require disturbing soil and will have areas of exposed bare soil during construction. As with any construction that disturbs soil, there is a risk of surface erosion. This risk will be greatest in areas with steep slopes and erodible soils. The City of Bellevue has mapped the area of the project from approximately MP 11.2 to 12.6 as a soil erosion hazard area due to the combination of slope and erodible soil.

Without erosion-control BMPs, ground clearing, excavation, grading, and soil stockpiling could potentially stimulate soil erosion that could result in increased turbidity downstream. However, the project will be constructed using WSDOT standard erosion control BMPs that will reduce this risk. In addition, stormwater management facilities constructed for this project will be among the first elements completed so that they will be treating stormwater during construction as well as after the project is completed.

Since the Bellevue Nickel Improvement Project will not require any construction, staging, or other activity in floodplain areas, project construction will not affect floodplains.

How will we minimize construction effects?

We will develop and implement the following:

- Temporary Erosion and Sediment Control Plan (TESC). The TESC will include BMPs to address the issues of source control, flow control, and treatment. BMPs will be site-specific and will include the following:
  - Installing check dams in drainage ditches to reduce water speed and allow fine sediment to settle.
  - Installing inlet protection filters to keep sediment from entering storm drains.
  - Installing bypass drains for steep slopes.
  - Timing culvert replacements to coincide with seasonal low-flow periods.
  - Diverting streams temporarily and isolating culvert replacements from stream flow to minimize discharge of sediment associated with culvert replacement.
- Spill Prevention Control and Countermeasures (SPCC) Plan will include the following required elements:
  - Identify general site information useful in construction planning, recognizing potential sources of spills, and identifying personnel responsible for managing and implementing the plan.
  - Identify staging, storage, maintenance, and refueling areas and their relationship to drainage pathways, waterways, and other sensitive areas. Specifically address the equipment maintenance, refueling, and cleaning activities and on-site storage areas for hazardous materials.
  - Identify spill prevention and containment methods to be used at each of the locations identified above.
  - Outline spill response procedures including assessment of the hazard, securing spill response and personal protective equipment, containing and eliminating the spill source, and mitigation, removal and disposal of the material.

How will we mitigate for unavoidable adverse effects?

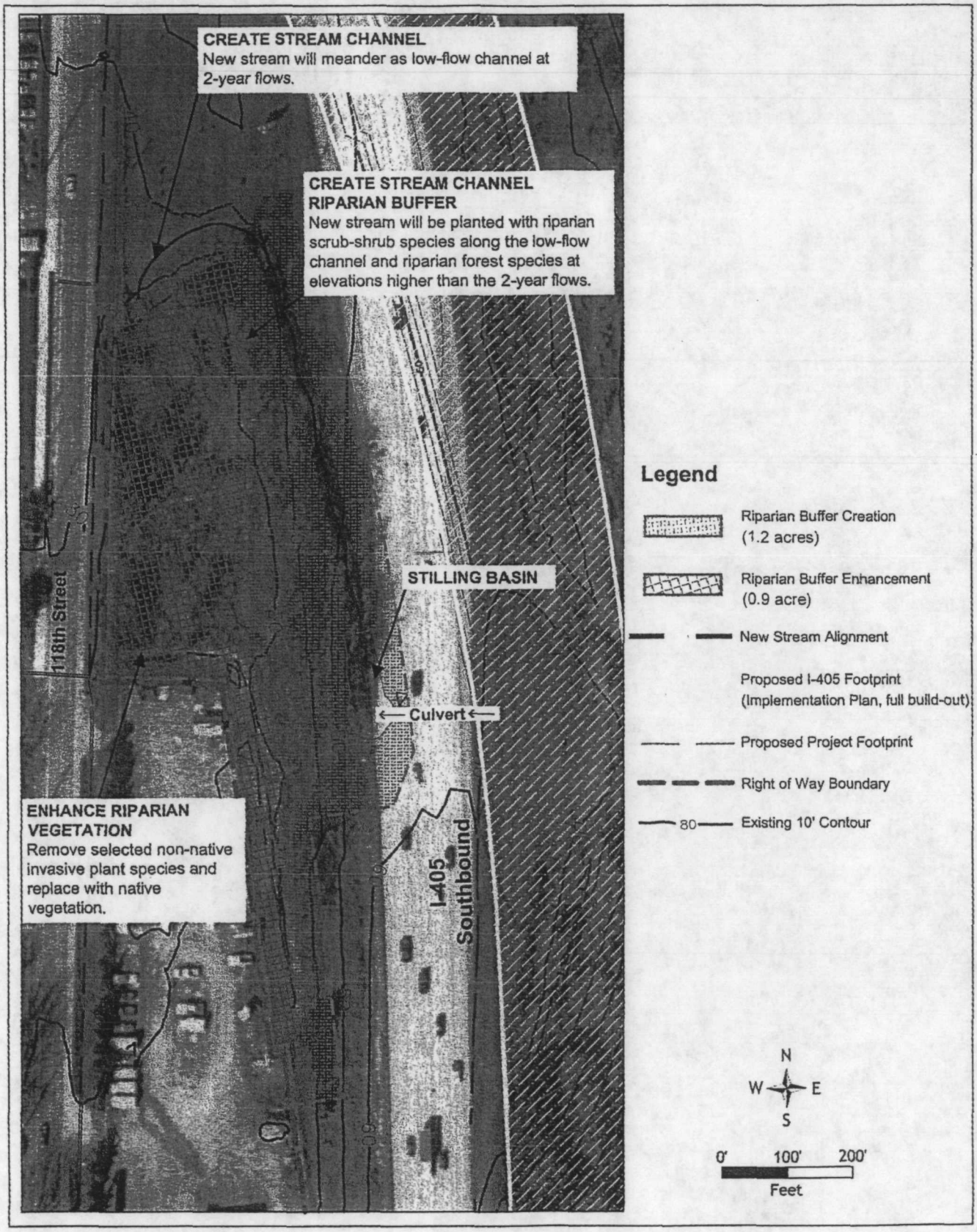
We will mitigate for unavoidable effects to Median Stream in coordination with federal and state resource agencies. We have developed a preliminary stream mitigation plan that includes on-site habitat restoration and creation.

The conceptual stream mitigation plan includes the following specific elements shown in Exhibit 5.4-2.

- Approximately 500 linear feet of new stream channel between southbound I-405 and 118th Avenue Southeast.
- Approximately 1.2 acres of new streamside vegetation along the newly created stream channel.
- Approximately 0.9 acre of enhanced stream buffer created by removing non-native plant species and replacing with native streamside vegetation.

These measures will produce a long-term improvement in functions and values of the water flow throughout this area, including wetlands, and will improve their ability to support any species that depend on this type of habitat.

Exhibit 5.4-2. Conceptual Stream Mitigation Plan



5.5 Upland Vegetation and Wildlife

Construction of the Bellevue Nickel Improvement Project will result in a relatively small loss of vegetation and wildlife habitat in the study area. Over the long term, wildlife habitat connectivity will be preserved and additional vegetative cover on top of the new Wilburton Tunnel will be provided.

We consider upland vegetation and wildlife as we plan this project because both are important components of the natural environment. Upland vegetation refers to the dominant vegetation communities present in the study area that are not directly associated with wetlands or streams.

Vegetation along a dry streambed

Please refer to the Bellevue Nickel Improvement Project Upland Vegetation and Wildlife Discipline Report in Appendix O (on CD) for a complete discussion of the Upland Vegetation and Wildlife analysis.

Upland vegetation is vegetation associated with dry areas away from water or wetlands, vegetation that is not located within the area influenced by a body of water.

Upland Vegetation

What is our study area and how did we determine it?

We defined the study area for upland vegetation to include all areas within the existing I-405 right of way where the effects from construction will be evident.

We included an area extending 0.25 mile from the project boundary to provide a larger but reasonable area within which to analyze wildlife habitat. We mapped the 0.25-mile area because this is the area in which effects to habitat may affect wildlife species. We included the additional area as far as 1 mile from the project footprint boundary for wildlife species such as bald eagles that are sensitive to noise, and can therefore be disturbed by activities at this distance.

What types of vegetation and wildlife habitat did we find in the study area?

We have used three land cover types to describe the type of upland vegetation found within the study area: forested, shrub/grass/herbaceous, and developed. To describe the wildlife habitat types present within the study area, we elected to use the

Special Status Plant Species

Special status plant species are plant species that are:

- Listed as threatened or endangered under the Endangered Species Act.
- Either proposed for or are candidates for such listing.
- Federal species of concern.
- Included in the Washington Natural Heritage Program database.

Non-Native Invasive Plant Species

Non-native invasive plant species are plant species that do not naturally grow in a particular area, but thrive once introduced to said area. These plants are characteristically adaptable, aggressive and have a high reproductive capacity. Their vigor combined with a lack of natural enemies often leads to outbreak populations.

Tall bugbane *(Cimicifuga elata)*

same three categories, plus the additional category of "wetlands." We show the area for each land cover type within the study area in Exhibit 5.5-1.

Forested areas within the study area are young stands of mixed deciduous and coniferous trees. There is no old growth forest within the study area.

Planted grasses interspersed with shrubs and herbaceous vegetation dominate the shrub/grass/herbaceous vegetation community.

Do any special status plant species occur in the study area?

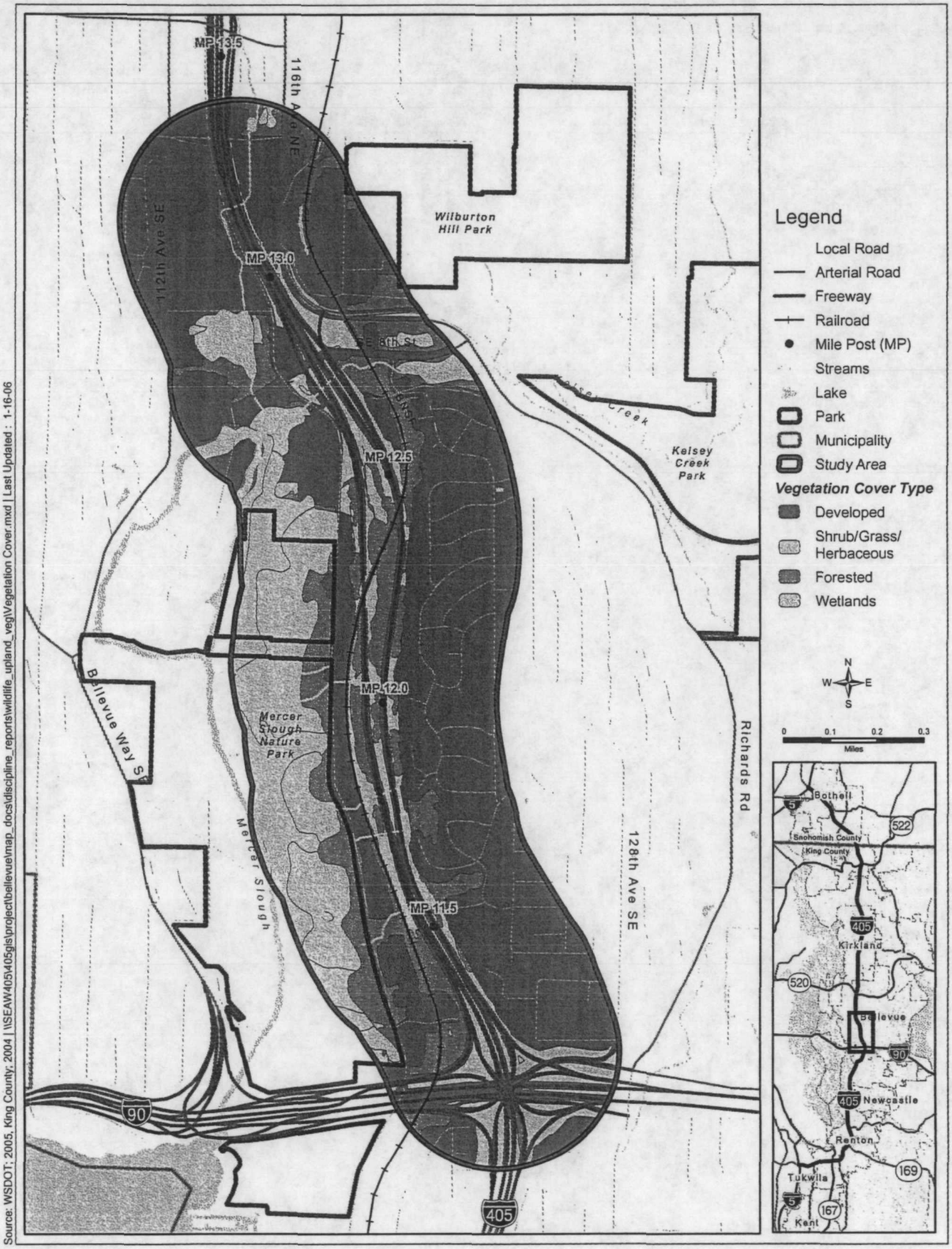
There are no known occurrences of special status plant species in the study area (WDNR 2005). One special status plant species, tall bugbane (*Cimicifuga elata*), may occur in the study area (USFWS 2005). Tall bugbane is a distinctively tall plant that grows under the forest canopy in lowland forests west of the Cascade mountain range. This species is unlikely to occur within the study area due to past habitat disturbance from the construction and maintenance of I-405 and the prevalence of non-native weed species within the right of way.

Wildlife

What are the wildlife habitat types in the study area?

We mapped the wildlife habitats within the study area using the same land cover types used to describe upland vegetation: forested, shrub/grass/herbaceous, and developed. We added a category for wetlands because existing wetlands within the study area provide important habitat for a wide variety of wildlife. Exhibit 5.5-2 identifies the amount of these habitat types located within the study area.

Exhibit 5.5-1. Vegetation Cover in the Study Area



Source: WSDOT; 2005, King County; 2004 | \\SEAW4051405gis\project\bellevue\map_docs\discipline_reports\wildlife_upland_veg\Vegetation Cover.mxd | Last Updated : 1-16-06

Raccoon (*Procyon lotor*)

Common crow (*Corvus brachyrhynchos*)

Exhibit 5.5-2. Land Cover and Wildlife Habitat Type within the Study Area

Land Cover/Habitat Type	Upland Vegetation (Acres)	Wildlife Habitat (Acres)
Forest	7.3	108.6
Shrub/grass/herbaceous	10.9	65.5
Wetlands	1.3	140.5
Developed	11.3	509.3
Total	**30.8**	**824.0**

Which common wildlife species do we know to live in the study area?

Based on the habitat available in the study area we expect wildlife species that commonly occur in urban areas to occur in the study area. This includes species such as raccoon, coyote, opossum, American crow, American robin, and other common mammal and migratory and non-migratory bird species.

A report prepared by students at the University of Washington at Bothell in 2001 includes a list of wildlife species observed in Mercer Slough Park (Waggoner 2001). We assumed that many of the species observed by the students may also occur in the study area given the close proximity.

During the field reconnaissance survey, we observed both a red-tailed hawk and a pileated woodpecker in the study area.

Do any special status wildlife species occur in the study area?

Based upon our review of the sources listed above, there are three documented special status species within the study area, and seven that may occur in the study area that no one has yet documented. We show these species, their status, and their documentation status in the study area in Exhibit 5.5-3. A brief discussion of each of these species follows the exhibit.

Special Status Wildlife Species

Special status wildlife species include those listed as endangered or threatened under the Endangered Species Act; species that are candidates or are proposed for listing under the endangered species act; species of federal concern; species listed by the Washington Department of Fish and Wildlife (WDFW) as endangered, threatened, candidate, or sensitive, and other priority species.

Exhibit 5.5-3. Special Status Species Documented or Potentially Occurring in the Study Area

Species	Status	Occurrence in study area
Bald eagle *Haliaeetus leucocephalus*	Federally threatened State threatened	Documented (WDFW 2005)
Yellow-billed cuckoo *Coccyzus americanus*	Federal candidate	Not documented; not expected to occur
Western toad *Bufo boreas*	Federal concern State candidate	Documented in Mercer Slough Park (Waggoner 2001); may occur in study area
Long-eared myotis bat *Myotis evotis*	Federal concern	Not documented; may occur
Long-legged myotis bat *Myotis volans*	Federal concern	Not documented; may occur
Pacific Townsend's big-eared bat *Corynorhinus townsendii townsendii*	Federal concern State candidate	Not documented; may occur
Olive-sided flycatcher *Contopus cooperi*	Federal concern	Not documented; may occur.
Peregrine falcon *Falco peregrinus*	Federal concern State sensitive	Not documented in study area; known to nest within one mile of the study area (WDFW 2005)
Great blue heron *Ardea heodias*	Priority species	Documented (WDFW 2005)
Pileated woodpecker *Dryocopus pileatus*	State candidate	Documented during field reconnaissance survey

Documented Occurrence: Observers have documented occurrences of the species in the WDFW PHS database or we have observed the species in the study area during field reconnaissance survey.
Not Documented: Species may occur based upon the presence of habitat commonly used by the species in the study area.

Do any priority habitats occur in the study area?

We consulted the WDFW PHS database for priority habitats within the study area and found documentation of one priority habitat type, wetlands, in the study area. See Section 5.6, "Wetlands," for a detailed description of this resource.

Priority Habitats

Priority habitats are those habitat types or elements with unique or significant value to a diverse assemblage of species.

Priority Species

WDFW defines priority species as those that are priorities for conservation and management and include state-listed endangered, threatened, sensitive, and candidate species; animal aggregations considered vulnerable; and species of recreational, commercial, or tribal importance that are vulnerable.

How are wildlife habitats connected within the study area?

Secluded corridors along which wildlife can safely move between patches of habitat are important for several reasons. For animals that need large home ranges, such corridors allow animals to use smaller patches of habitat that they can travel between to make up a home range. They also allow habitat for young animals that are moving away from the home range they were born in and establishing their own home ranges to travel through.

For smaller animals that do not move large distances, habitat connectivity provides continuous habitat and helps to prevent the isolation of animal populations. Connective corridors are most effective when they contain enough vegetation to provide protective cover for animals traveling through them.

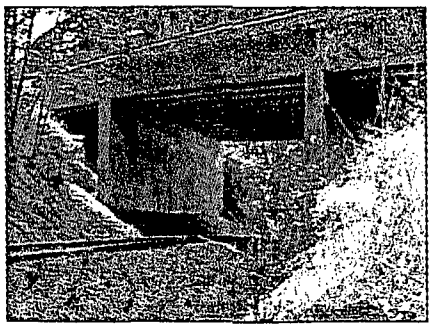
Connective corridors are often located along streams or rivers if there is a corresponding strip of streamside vegetation. Other linear features on the landscape can also provide connective corridors if they contain sufficient vegetation. Within the study area the interstate right of way and the BNSF right of way provide potential connective corridors.

Features that are common in urban areas, such as roads and large areas of development, can create barriers to wildlife movement.

The study area lies between two large patches of wildlife habitat within the City of Bellevue: Mercer Slough Park and Kelsey Creek Park. The existing interstate and associated noise wall create a barrier to movement between these habitats for the majority of the interstate alignment through the study area. Within the study area, two locations exist where wildlife can cross the interstate without entering lanes of traffic. The first site is located where the BNSF right of way crosses the interstate; the other site is located at the underpass at Southeast 8th Street.

The BNSF right of way crosses over the southbound lanes of I-405 and under the northbound lanes. The noise wall for the northbound lanes attaches to the bridge that goes over the

Wildlife corridor under the northbound lanes of I-405



Existing BNSF rail line beneath the northbound lanes of I-405

railroad right of way, so the noise wall does not create a barrier on the east side of the interstate. Along the BNSF right of way, vegetation extends from the west to the east side of I-405, providing continuous cover, except for a narrow strip of unvegetated area directly under the northbound lanes and the area directly adjacent to the railroad tracks. This creates a vegetated connective corridor between the east and west sides of the interstate.

This corridor has the potential to provide habitat connectivity for a variety of terrestrial species, such as coyote and raccoon. Home-range territories can extend across the interstate and wildlife can use the corridor for dispersal.

This corridor may help to avoid isolation of animal populations by providing habitat continuity for low-mobility animals with small home ranges, such as shrews or small rodents.

There are two noise walls in this connective corridor along the northbound lanes that could be a movement barrier for some species, however.

Because the underpass at Southeast 8th Street is highly developed with large paved spaces that may create a barrier to movement for many species, we determined that wildlife is less likely to utilize this area. This area also has high traffic volumes that may limit use of the area by wildlife and may increase the probability of fatality for wildlife attempting to move through the area. Wildlife may utilize this area however, particularly during periods of low human activity.

How will the project affect upland vegetation?

Under the Build Alternative, we determined that construction activities will permanently convert upland forest and shrub/grass/herbaceous habitats to a developed condition within the area of the project construction. We list the approximate acreage of each of these affected habitat types in Exhibit 5.5-4 below.

Exhibit 5.5-4. Acres of Effect by Vegetation Type

Vegetation type	Acres affected
Forest	7.3
Shrub/grass/herbaceous	10.9
Total	**18.2**

Temporary effects to upland vegetation will also occur outside of the project footprint and within the I-405 right of way. Construction equipment moving over areas of upland vegetation will temporarily affect these areas. This outcome is most likely in areas containing grass or herbaceous vegetation. We expect damaged vegetation to reestablish following completion of construction.

Noxious Weeds

Noxious weeds are non-native plants that when established are highly destructive, competitive, or difficult to control by cultural or chemical practices (Chapter 17.10 RCW; Chapter 16-750 WAC).

Most project effects will occur in the shrub/grass/herbaceous vegetation type. This vegetation type contains a high level of non-native plants, including noxious weeds, and so is not a unique vegetation type within the region.

How would the No Build Alternative affect upland vegetation?

Under the No Build Alternative, we would continue to manage upland vegetation within the I-405 right of way in its current condition. Management activities include periodic mowing, removal of dead or dying trees and tree limbs that could fall on the roadway, and clearing of brush that encroaches on the roadway. These activities affect vegetation by preventing trees from establishing themselves in mowed areas and preventing forested areas from developing natural features such as snags and downed wood.

How will the project affect wildlife habitat?

Construction of the project will convert wildlife habitat from forest, wetland, or shrub/grass/herbaceous to a developed land cover type.

The forested habitat affected is younger mixed forest stands that are common in the study area. The amount of this habitat affected is a small portion of the total amount available in the study area.

How would the No Build Alternative affect wildlife habitat?

Under the No Build Alternative, we would continue to manage wildlife habitat within the I-405 right of way by conducting periodic mowing, removing dead or dying trees and tree limbs that could fall on the roadway, and clearing brush that encroaches on the roadway. These activities would prevent additional trees from establishing themselves in mowed areas and prevent forested areas from developing more natural features such as snags and downed wood that would otherwise support a greater variety of wildlife.

Under the No Build alternative there would be no loss of wetlands within the area of construction.

How will the project affect common wildlife species?

The Build Alternative will affect common wildlife species by reducing the amount of habitat available for them in the study area. The shrub/grass/herbaceous habitat type will sustain the greatest affects. This habitat type contains many non-native and weedy species that likely limit its value as habitat. Removal of this habitat type could reduce the amount of food and cover available for species such as raccoon and opossum in the study area.

Removal of forest habitat will reduce the amount of habitat available for species commonly found in urban forest environments. Effects include a reduction in habitat for common wildlife species including the amount of nesting habitat available for birds such as the American robin and resting sites for species such as raccoon.

How would the No Build Alternative affect common wildlife species?

Ongoing routine maintenance would occur under the No Build Alternative at similar levels as currently occur. No additional effects to common wildlife species would occur under the No Build Alternative.

How will the project affect special status wildlife species?

The Build Alternative may affect special status species by habitat loss, noise, and disturbance from construction activities.

Removal of forested habitat will reduce the amount of habitat available in the study area for forest-dependent species, such as the long-eared myotis bat, long-legged myotis bat, olive-sided flycatcher, and pileated woodpecker. For example, loss of forested habitat will reduce the amount of roosting habitat available for both long-eared and long-legged myotis bats in the study area; will reduce the amount of nesting habitat available for olive-sided flycatchers and other migratory birds in the study area; and will reduce the amount of foraging and nesting habitat available for pileated woodpecker in the study area. Compared to the large areas of suitable habitat for these species remaining to the west of the study area (in Mercer Slough Park) and to the east (in Kelsey Creek Park), this loss will represent a small amount of the total habitat available in the project vicinity.

Converting wetland habitat to a developed condition will reduce the amount of foraging habitat for great blue herons in the study area. The amount of wetland affected is small, however, compared to the hundreds of acres of wetland habitat available in the study area, specifically in Mercer Slough and Kelsey Creek Parks. Therefore, we do not expect the conversion of these wetlands to a developed land cover type to affect the productivity of the great blue heron colony located in Mercer Slough Park. Wetland mitigation, as described in Section 5.6, "Wetlands," will also provide replacement habitat.

Converting wetland habitat to a developed condition will reduce the amount of breeding habitat available for western toads in the study area. However, these wetlands may be too small to offer sufficient breeding habitat. This species is more likely to utilize larger ponds in the study area for breeding. The wetland mitigation we mentioned above will also provide possible replacement habitat for the western toad.

There will be no direct effects to special status wildlife species from converting shrub/grass/herbaceous habitat to a developed land cover type since none of the special status species that occur or that may occur in the study area depends on this habitat type.

Noise associated with construction activity may affect bald eagles at the one nest site within a 1-mile distance of areas where pile driving will occur. Noise can disturb nesting bald eagles. Noise can cause adult eagles to flush from the nest, leaving either

eggs or young eagles exposed to weather and predators, and in extreme cases, noise can cause bald eagles to abandon their nest. We will avoid noise effects to this nest by implementing the avoidance measures described in Appendix B.

Upland vegetation wildlife crossing on the Wilburton Tunnel.

How would the No Build Alternative affect special status wildlife species?

Ongoing routine maintenance would occur under the No Build Alternative at similar levels as currently occur. No additional effects to special status species would occur under the No Build Alternative.

How will the project affect wildlife habitat connectivity?

Under the Build Alternative, temporary construction effects to wildlife habitat connectivity will occur within the study area. However, we will preserve connectivity in the long term.

The Build Alternative includes reconstructing the southbound lanes of I-405 in what is currently the median. This will necessitate construction of a new tunnel under the BNSF right of way in the vicinity of the existing Wilburton Tunnel. The existing tunnel will remain after we complete the improvements.

During construction, the new tunnel will lack vegetative cover; however, once construction is completed, we will reestablish vegetation and over time, plant communities with characteristics similar to the existing condition will return. The new tunnel will continue to provide wildlife habitat connectivity over and across the southbound lanes.

We will also widen the northbound bridge over the BNSF right of way to accommodate an additional lane of the interstate. This may affect the short-term use of this area by wildlife, as animals will tend to avoid the area due to increased levels of human activity. However, we do not expect this aspect of the project to alter the long-term suitability of this area for wildlife use.

Removing the vegetated median and constructing a retaining wall between the southbound and northbound lanes in the vicinity of the existing Wilburton Tunnel may reduce the success rate with which animals attempt to cross the interstate by crossing the lanes of traffic. The retaining wall could trap animals attempting to cross, forcing them to either travel along the interstate,

increasing the risk of collision with vehicles, or forcing them to return in the direction from which they came.

The project may also temporarily affect wildlife using the Southeast 8th Street underpass to travel from one side of the interstate to the other. This may occur if animals avoid the area due to human activity associated with construction, particularly if construction were to occur at night.

How would the No Build Alternative affect wildlife habitat connectivity?

Under the No Build Alternative, the existing condition for wildlife habitat connectivity in the study area would not change.

How will we avoid or minimize adverse effects from construction?

We will avoid or minimize effects to upland vegetation and wildlife from construction by following the BMPs and avoidance measures described in Appendix B, and by taking the following actions:

Before construction begins, we will avoid or minimize potential effects to bald eagles by determining whether the bald eagle nest located within 1 mile of the project is active. We will also obtain current PHS data to determine if any new nest sites have been established and to determine if any observer has documented new roosting or foraging sites. We will work with WDFW to avoid and minimize effects that may occur during construction and operation of the project if we find any of these bald eagle use areas to be located within any of the following distances relative to the study area:

- Within 0.25 mile of the study area and the study area is not within line of sight of the nest.
- Within 0.5 mile of the study area and the study area is within line of sight of the nest.
- Within 1.0 mile of an area where either blasting or pile driving would occur.

In consultation with WDFW, we may also implement the following measures to avoid or minimize effects, including:

- Setting timing restrictions on construction activities that may cause disturbance so that activities occur outside of the nesting season (January 1 through August 15).
- Installing noise barriers.
- Protecting perch trees from removal.
- Installing or establishing visual barriers, for example, by planting trees.

If the project is located within 800 feet of any bald eagle nests or roosts, we will work with WDFW to develop a management plan for the bald eagle nest or roost.

In addition, we will consult with appropriate federal and state agencies to discuss ways to reduce potential harm to migratory birds (including songbirds) by minimizing the amount of vegetation clearing during the spring nesting season. We will also consult with appropriate federal and state agencies if structures that may contain nests of migratory birds will be removed during the nesting season.

Will we mitigate any unavoidable negative effects?

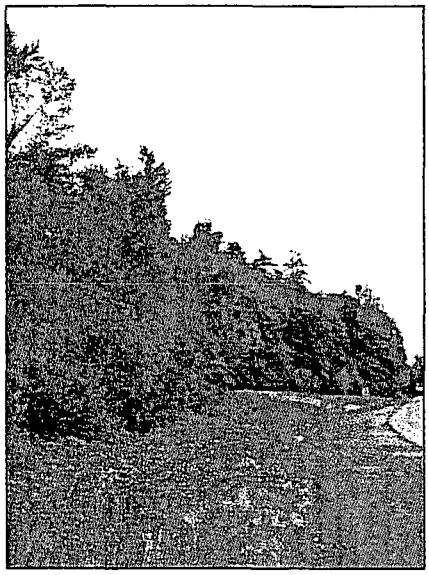
As discussed in detail in Section 5.6 of this EA and the Wetlands Discipline Report prepared for this project (attached as Appendix R), we will replace wetlands to achieve no net loss of habitat or function.

Under the Build Alternative, there will also be permanent loss of upland vegetation in the study area. In-kind replacement of lost upland vegetation is not required. We will however, provide additional vegetative cover on top of the new Wilburton Tunnel to preserve the existing wildlife corridor across I-405 along the BNSF right of way. We will also plant native shade-tolerant vegetation in areas near elevated roadways and ramps where feasible and practical.

5.6 Wetlands

WSDOT modified the roadway design to avoid and minimize effects on wetlands. Construction of new roadway and stormwater facilities will fill just less than an acre of wetland. WSDOT will create more than an acre of new wetland area at nearby Kelsey Creek Park.

Wetlands are a valuable environmental resource. They can help to moderate stormwater flows by slowing down and retaining floodwater during periods of rain. They can help to minimize flooding downstream and to clean the water of materials such as dirt and oil. Wetlands can also provide vital habitat for many plants and animals. We are implementing measures that avoid, create, and enhance wetland resources in the Bellevue Nickel Improvement Project area.



Typical wetland vegetation found in the study area

What is our study area for this analysis?

The study area includes existing WSDOT right of way along a 2-mile section of I-405, between the interchange with I-90 and Southeast 8th Street in the City of Bellevue.

We identified the study area based on the project's anticipated area of disturbance. The construction area of disturbance includes all areas affected by proposed improvements to I-405, in addition to all areas affected by other necessary project elements, such as stormwater treatment facilities, noise walls, and surface street improvements.

Please refer to the Bellevue Nickel Improvement Project Wetlands Discipline Report in Appendix R (on CD) for a complete discussion of the Wetlands analysis.

Where are the wetlands in the study area and what are their characteristics?

During field investigations between September 2004 and April 2005, we delineated nine wetlands in the study area (see Exhibit 5.6-1). The Bellevue Nickel Improvement Project is located within the Mercer Slough and Kelsey Creek drainage basins. I-405 crosses Kelsey Creek near Southeast 8th Street. Kelsey Creek flows into Mercer Slough, which connects to Lake Washington.

Characteristics of a Wetland

Water at or close to the ground surface during a portion of the annual growing season.

Soils that lack oxygen during persistently wet conditions, technically known as anaerobic (without oxygen) conditions.

Vegetation that is able to grow and thrive under wet conditions.

Exhibit 5.6-1. Wetlands in the Study Area (Sheet 1 of 4)

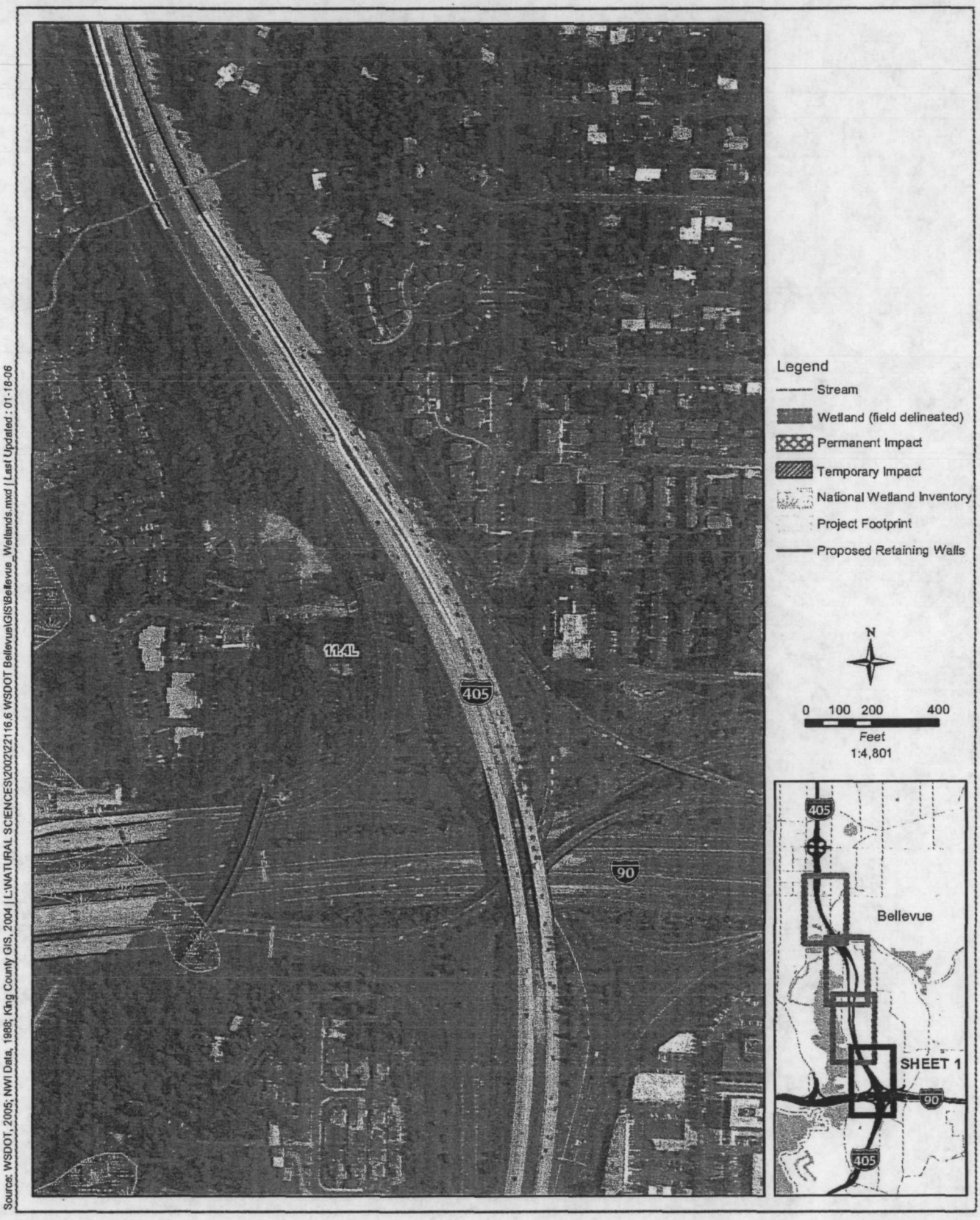


Exhibit 5.6-1. Bellevue Nickel Improvement Project Wetlands (Sheet 2 of 4)

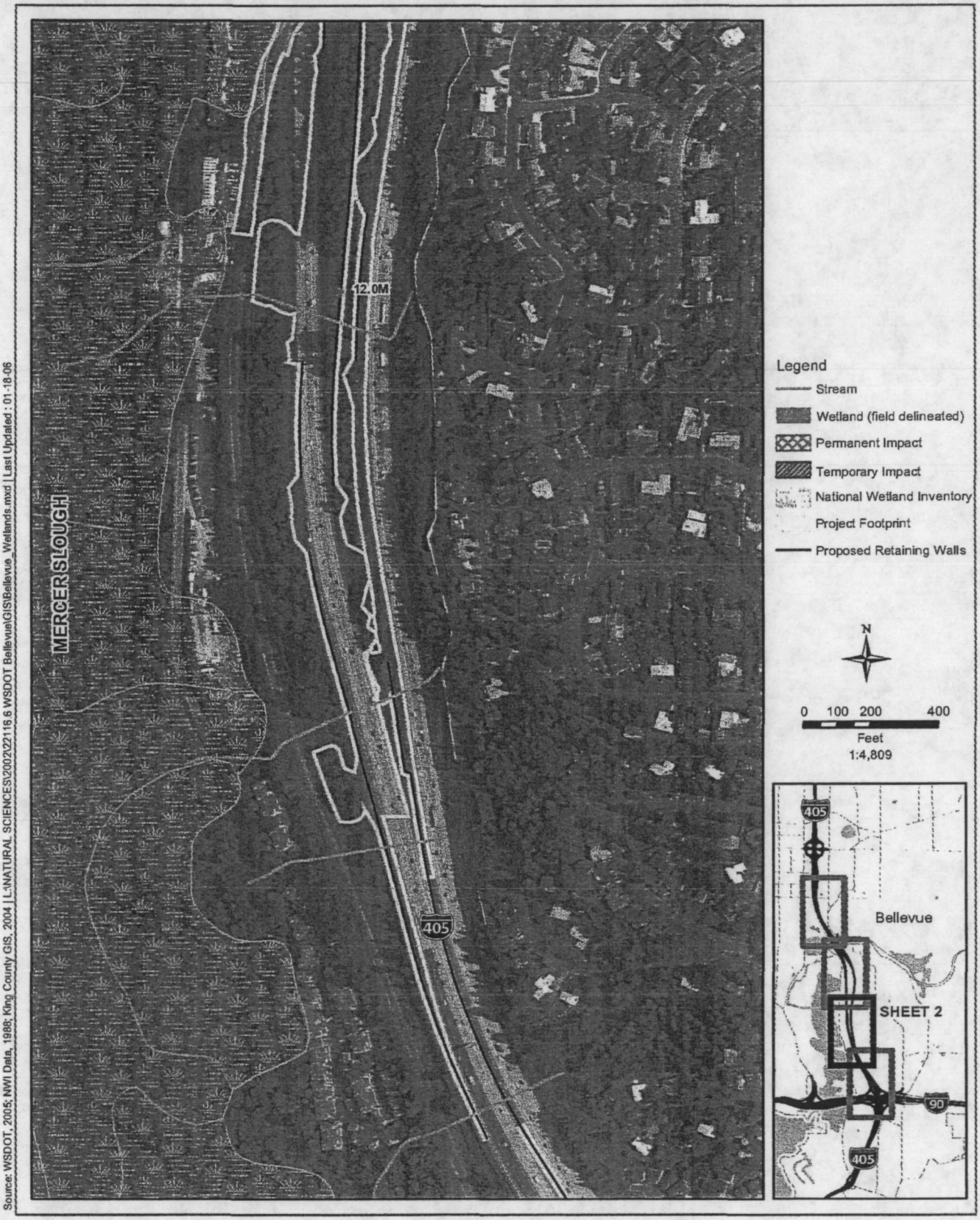


Exhibit 5.6-1.Wetlands in the Study Area (Sheet 3 of 4)

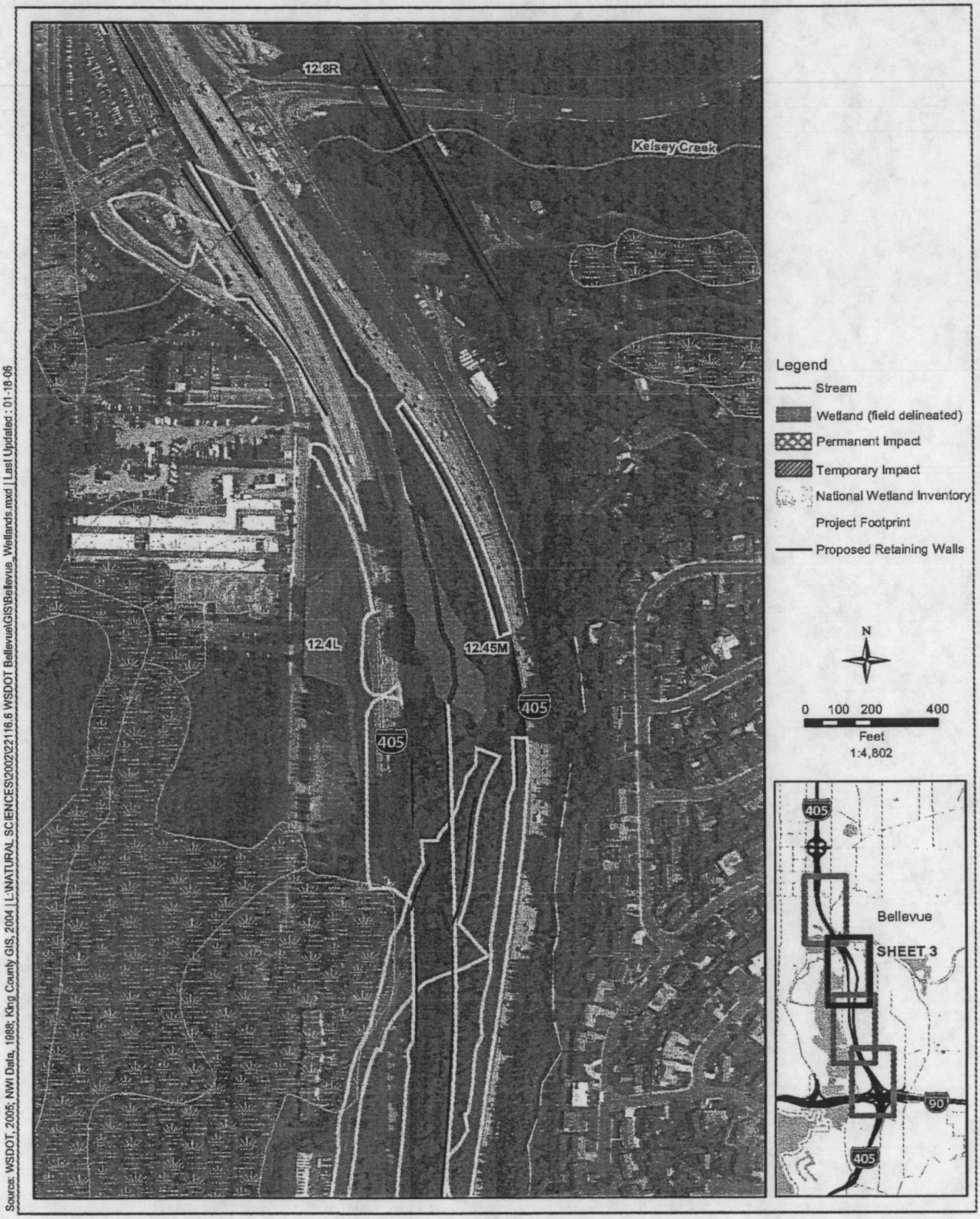
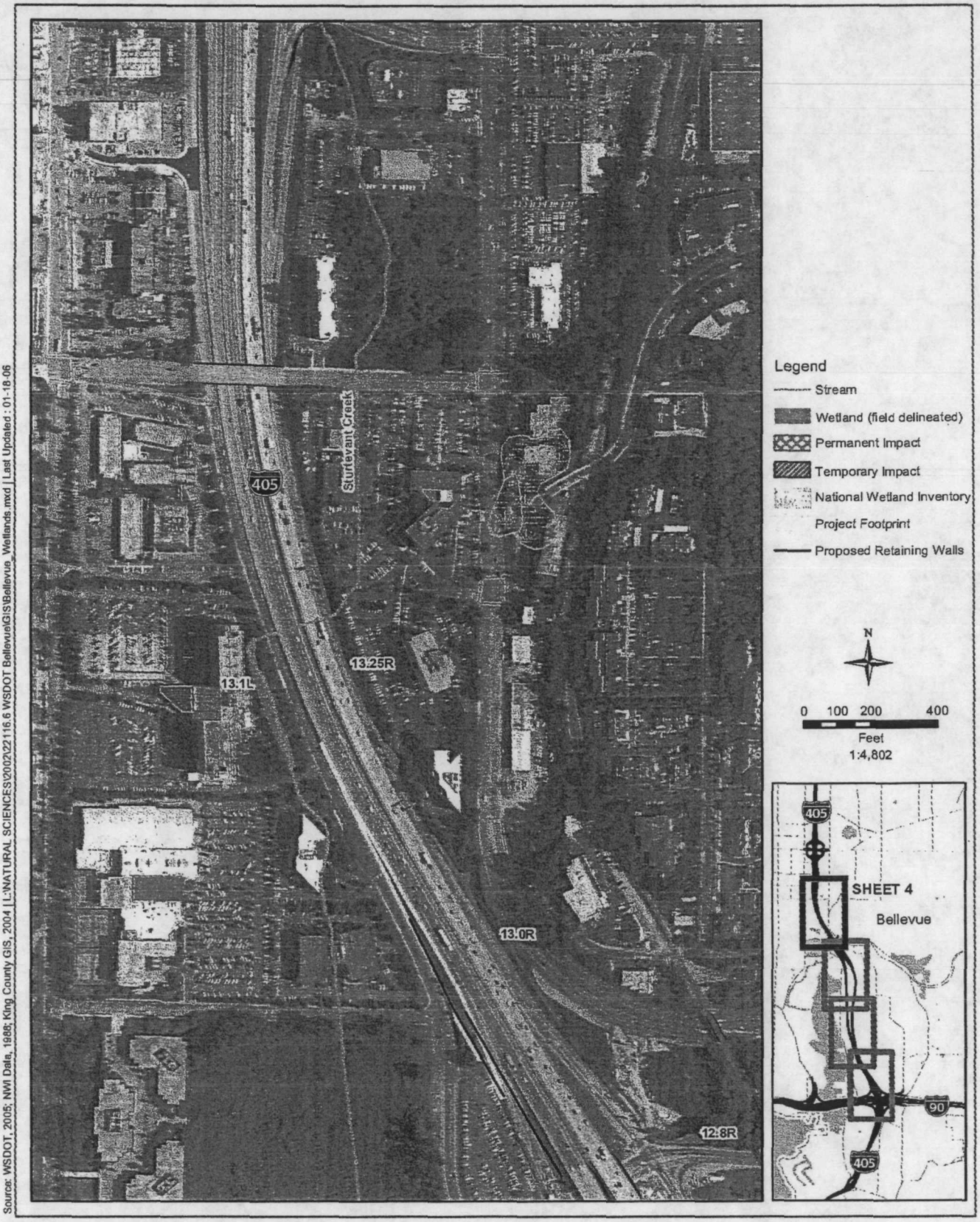


Exhibit 5.6-1. Wetlands in the Study Area (Sheet 4 of 4)



Of the wetlands delineated in the study area, the Mercer Slough basin contains five of the wetlands comprising 2.68 acres. The Kelsey Creek basin contains four wetlands covering 0.68 acre (Exhibit 5.6-2).

Exhibit 5.6-2. Wetland Ratings, I-405 Bellevue Nickel Improvement Project Study Area

Wetland	Size (acres)	Classification	Rating (Ecology)	Basin Location
11.4L	0.06	Palustrine Forested	III	Mercer Slough
12.0M	0.02	Palustrine Scrub-shrub	IV	Mercer Slough
12.4L	0.86	Palustrine Forested	II	Mercer Slough
12.45M	1.69	Palustrine Forested	III	Mercer Slough
12.5M	0.05	Palustrine Emergent	IV	Mercer Slough
12.8R	0.06	Palustrine Emergent	IV	Kelsey Creek
13.0R	0.16	Palustrine Emergent	IV	Kelsey Creek
13.1L	0.27	Palustrine Emergent	IV	Kelsey Creek
13.25R	0.19	Palustrine Emergent	IV	Kelsey Creek
TOTAL	**3.36**			

Wetland Definitions

Palustrine – Freshwater areas dominated by trees, shrubs, persistent emergents, mosses or lichen.

Emergent – A wetland characterized by erect, rooted, non-woody plants.

Forested – A wetland characterized by woody vegetation that is greater than or equal to 20 feet high.

Scrub-shrub – A wetland characterized by vegetation less than 20 feet high.

Mercer Slough Basin Wetlands

The five wetlands in the Mercer Slough basin receive water from hillside seeps, Kelsey Creek, surface water drainage, and groundwater. The majority of wetlands are roadside ditches dominated by bentgrass, velvetgrass, and soft rush. These wetlands receive road runoff and typically discharge to a catchbasin or culvert.

Three of the five wetlands in the Mercer Slough basin are forested wetlands. Wetland 11.4L is a 0.06-acre forested

wetland, located northwest of the I-405 and I-90 interchange south of Arrow Road, is dominated by black cottonwood and Oregon ash. Wetland 12.4L is a 0.86-acre wetland located between I-405 and 118th Avenue Southeast. Willow and red alder dominate the wetland, but it also contains reed canarygrass. It discharges to Mercer Slough through a culvert under 118th Avenue Southeast. Wetland 12.45M is located in the median north of the Wilburton Tunnel. It is a 1.69-acre wetland associated with a hillside seep and Median Stream. Willow, red alder, blackberry, and reed canarygrass dominate this wetland.

Kelsey Creek Basin Wetlands

All of the wetlands in the Kelsey Creek drainage are emergent wetlands dominated by reed canarygrass, soft rush, and bentgrass, with some alder, willow, and blackberry. Three of the wetlands are located in a roadside drainage ditch.

The Kelsey Creek basin contains four wetlands. These wetlands receive water from Kelsey Creek and its tributaries, surface water, and groundwater.

Wetland 13.1L is a small, narrow, riparian wetland associated with Sturtevant Creek.

Wetland Rating System

Ecology provides a rating system for wetlands so we have a standard to measure their overall worth. Ecology's rating system has four categories, ranging from Category I representing a unique or rare wetland type, to a Category IV wetland with the lowest levels of functions, often heavily disturbed. Using Ecology's rating system, we found that six of the nine wetlands in the study area belong to the lowest class of value (Category IV); two of them are a single category higher in value. One of the wetlands provides high levels of some functions (Category II) which this construction project will not affect, but none earned the first-quality ranking. The Ecology rating for each wetland in the study area is shown in Exhibit 5.6-2.

Ecology Wetland Rating System

- Category I wetlands represent a unique or rare wetland type; or are more sensitive to disturbance; or are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime or provide a high level of functions.
- Category II wetlands are difficult, though not impossible, to replace, and provide high levels of some functions.
- Category III wetlands have a moderate level of function. They have been disturbed in some ways, and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.
- Category IV wetlands have the lowest levels of functions and are often heavily disturbed.

What functions do the wetlands in the study area provide?

Six of the nine wetlands identified in the Mercer Slough and Kelsey Creek basins support emergent and/or scrub-shrub vegetation. Three of the wetlands are classified as forested systems. Because the area has been extensively developed and most forested areas have been cleared, forested wetlands are

generally considered to be of higher value than emergent or scrub-shrub wetlands due to their limited presence in the study area and the benefits they provide.

We found that seven of the nine wetlands have the potential to provide valuable stormwater management functions, including flood flow alteration, sediment removal, nutrient and toxic material removal, and erosion control. Most of these wetlands have dense vegetation that can remove sediment and toxic materials present in road runoff.

Approximately half of the wetlands in the study area are likely to provide functions related to general habitat and habitat for amphibians, wetland-associated mammals, and/or wetland-associated birds.

Wetland 13.1L, the streamside wetland adjacent to Sturtevant Creek, is likely to provide general value as fish habitat. Wetlands 12.4L and 12.45M likely provide native plant richness.

How will the project affect wetlands?

To build the additional roadway and stormwater facilities, construction will occur in and adjacent to wetlands. Construction will remove trees and shrubs and convert unpaved areas to paved roadway. The project will permanently affect three of the nine wetlands identified in the study area and result in a total of 0.94 acre of wetland fill. All three wetlands are located within the roadway median between the northbound and southbound lanes.

Project construction will completely fill Wetlands 12.0M and 12.5M and will partially fill 12.45M. Wetland 12.0M is a small, 0.02 acre hillside seep wetland. Because it is on a slope and located in the roadway median, it does not provide any flood flow alteration, sediment removal, or habitat functions. Wetland 12.5M is a small 0.05 acre wetland. Filling this wetland will eliminate its ability to provide water quality improvement functions.

Wetland 12.45M at 1.69 acres, is the largest wetland affected by the project. Filling 0.87 acre of the western portion of this wetland will reduce its capacity to store stormwater, filter pollutants, and provide wildlife habitat. Because the unaffected portion of the wetland receives water from seeps, it will continue to be a wetland with the ability to filter pollutants and provide wildlife habitat functions.

How will construction activities temporarily affect wetlands?

Construction activities will temporarily disturb an additional 0.01 acres of wetland 12.9M, and 0.17 acres of wetland 12.45M. After construction of the project is complete, we will restore these areas and replant them with appropriate vegetation. We will develop a project-specific plan before construction to identify how restoration will occur.

Construction disturbance will result in a short-term loss of wetland functions. Habitat functions will temporarily decline as the planted trees, shrubs, and emergent plants become established. When we clear or trim vegetation, the wetlands will still retain some water quality and functions, although at diminished levels.

Erosion and deposit of sediment caused by construction activities will increase the amount of sediment settling within a wetland and reduce the quality of available habitat for invertebrate life and habitat for plants. Additionally, loose sediment will reduce the potential water quality and quantity benefits provided by those wetlands. However, we will implement certain BMPs, as required in the WSDOT Highway Runoff Manual (WSDOT 2004c), to avoid and minimize effects from erosion and deposit of sediment during construction (see Appendix B).

How would the No Build Alternative affect wetlands?

The No Build Alternative would have no permanent, temporary, or indirect effects on wetlands in the Bellevue Nickel Improvement Project study area. No wetland or wetland buffer would be filled or cleared under this alternative, and there would be no change to current moderation of stormwater flows or existing wildlife habitat functions.

Some wetlands that occur within the right of way are currently affected by the lack of forested upland buffer and the lack of modern stormwater control and management facilities. Wetland areas that occur within right of way areas that must be kept clear of trees for safety reasons and those wetlands that receive untreated or under treated stormwater runoff, would likely continue to be affected by these conditions. Water quality in these wetlands would continue to be affected by sediment

transport and erosion. Additionally, minor roadway safety improvements would continue to take place.

How will we compensate for unavoidable negative effects on wetlands?

We will compensate for adverse effects to wetlands and their buffers by creating within the boundaries of Kelsey Creek Park a wetland area that is larger (greater than an acre) and more functional than the area disturbed by the project (Exhibit 5.6-3). Our general concept will be to create a new wetland area that naturally transitions from forested land next to the Lake Hills Connector to wetlands within Kelsey Creek Park. We will remove soil from within this area to create wet conditions favorable for wetland vegetation.

How will we avoid or minimize adverse effects from construction?

We reviewed the wetland mapping and compared it to our current design for widening the roadways. We then modified the design specifically to avoid or minimize effects to wetlands. In most cases, we avoided permanent effects to wetlands by adjusting the project design. However, our need to adhere to WSDOT roadway design standards made it impossible to avoid affecting all wetlands.

During construction, we will minimize effects by following construction BMPs specified in the Highway Runoff Manual (WSDOT 2004c) and the BMPs included in Appendix B to this EA. We will also develop and implement a TESC and SPCC Plan to avoid effects to wetlands.

Exhibit 5.6-3. Proposed Wetland Mitigation Area

5.7 Historic, Cultural, and Architectural Resources, and Section 4(f) Evaluation

The Bellevue Nickel Improvement Project will not adversely affect any historic properties or Section 4(f) resources in the study area.

Historic, Cultural, and Architectural Evaluation

Cultural resources refer to places, things, and human institutions that provide information about people from the past, their experiences, and their cultural identities. Cultural resources can include archaeological sites, cultural landscapes, spiritual places, people, documents, districts, sites, buildings, objects, and structures. Several interrelated federal, state, and local laws and regulations require, and provide guidance for, consideration of how development projects might adversely affect cultural resources (see Exhibit 5-1).

What is our study area for this analysis?

Cultural resource experts use the term "area of potential effect" when describing the study area for a cultural resource investigation. The area of potential effect is the area within which an undertaking may cause direct or indirect changes to the character of any historic property. The area of potential effect can extend beyond the actual area where construction is planned.

The horizontal limits of the area of potential effect for the Bellevue Nickel Improvement Project are approximately one property removed from the boundary of the I-405 right of way and reflect the extent to which the project has the potential to affect historic properties. The vertical extent of the area of potential effect is limited to the maximum depth of ground disturbance associated with project construction.

Agencies and Organizations Consulted for Background Information Included:

Washington State Office of Archaeology and Historic Preservation

- King County
- King County Archives
- King County Department of Assessments
- Washington State Archives, Puget Sound Regional Branch
- King County Historic Preservation Program
- King County Assessor's Office
- University of Washington Libraries
- Seattle Public Library
- King County Road Services Division
- City of Bellevue
- Bellevue History Center
- Bellevue Historical Society
- Eastside Heritage Center
- Bellevue Regional Library

Please refer to the Bellevue Nickel Improvement Project Historic, Cultural, and Archeological Resources, and Section 4(f) Resources Discipline Reports in Appendices I and U (on CD) for a complete discussion of these analyses.

What is a historic district?

Historic districts may contain a variety of resource types, but these resources share a common historic theme and time period. Historic districts, like other historic properties, must also have definable boundaries.

Are any cultural resources located in the area of potential effect?

Project historians did not identify any archaeological remains within the area of potential effect. No buildings or other structures within the project area are currently listed in the National Register of Historic Places (NRHP).

We did identify a residential neighborhood just east of I-405 that may qualify as an historic district based on criteria used by the NRHP. The neighborhood, known as Norwood Village, is a unique, architect-designed, post-World War II housing community designed and built in the early 1950s. The neighborhood is considered eligible for listing in the NRHP for possessing distinctive design characteristics and being associated with two important local architects, Fred Bassetti and Paul Hayden Kirk.

The team also identified the Wilburton Trestle, listed on the Washington Heritage Register and eligible for listing on the NRHP. For a more detailed discussion on the Wilburton Trestle and Norwood Village, see "Section 4(f) Evaluation" later in this chapter.

How will the project affect cultural resources?

We concluded the project will not have an adverse effect on Norwood Village because the results of the noise analysis for the project showed that none of the residences within the Norwood Village neighborhood will experience future noise levels approaching or exceeding the FHWA noise abatement criteria for residential areas.

We concluded that the project will not alter any portion of the Wilburton Trestle, nor will it result in increased noise, visual, or vibratory elements that will alter the noteworthy characteristics of the trestle (see Section 5.2, "Noise Analysis").

How will the No Build Alternative affect cultural resources?

The No Build Alternative would not adversely affect Norwood Village or the Wilburton Trestle. None of the residences within the Norwood Village neighborhood would experience future traffic noise levels that approach or exceed the FHWA NAC for residential areas. The No Build Alternative would not adversely affect the Wilburton Trestle because it is largely outside the project area of potential effect. The portion of the trestle within

the area of potential effect is too far from the I-405 right of way to be directly or indirectly affected by it.

How will project construction affect cultural resources?

Construction activity associated with the project may temporarily affect Norwood Village and the Wilburton Trestle by increasing the amount of noise and dust that they experience. Based on federal guidance, we do not consider temporary effects, such as those we expect during construction, in evaluating a project's adverse effect on historic properties because they do not diminish characteristics of the property that make them eligible for the NRHP.

What will we do to avoid or minimize effects on cultural resources?

We concluded that the project will not adversely affect either Norwood Village or the Wilburton Trestle. Because we expect no adverse effects, no specific avoidance or minimization efforts beyond those that we will incorporate into the project (see Appendix B) are necessary at this time. We will prepare an Unanticipated Discovery Plan for the project that we will follow in the event that construction activities uncover unknown cultural resources.

Section 4(f) Evaluation

This section of the EA summarizes our formal evaluation of whether the project would affect particular resources protected by Section 4(f) of the 1966 Department of Transportation Act.

What is Section 4(f)?

Section 4(f) of the DOT Act of 1966 (49 USC 303) prohibits FHWA from approving a transportation project that uses land from a significant public park, recreation area, wildlife or waterfowl refuge, or land of an historic site of national, state, or local significance, unless:

- There is no feasible and prudent alternative, and
- The project includes all possible planning to minimize harm to the property.

Feasible and Prudent

A term that is integral to the Section 4(f) process, ***feasible and prudent*** refers to the viability of an alternative that avoids the use of a Section 4(f) resource. The term ***"feasible"*** refers to the constructability of a project — whether or not it can be built using current construction methods, technologies, and practices. The term ***"prudent"*** refers to how reasonable the alternative is — in essence, whether or not it makes sense.

An alternative may be rejected if it is considered not feasible and prudent for any of the following reasons:

- project purpose and need are not met
- excessive cost of construction
- severe operational or safety problems
- unacceptable impacts (social, economic, or environmental)
- serious community disruption
- a combination of any of the above.

Minimize Harm (Minimization)

Minimization involves developing measures during the planning phase of a project to reduce proposed effects to a resource. Minimization measures could include shifting an alignment, committing to off-season construction, replacing land or facilities, restoring or landscaping, or paying fair market value for affected lands.

A Section 4(f) evaluation must be prepared if the project uses any 4(f) resource. In a Section 4(f) evaluation, the agency or persons proposing the project must describe the affected properties; discuss the specific use(s) of the resources; identify and evaluate alternatives that avoid use of 4(f)-protected lands; include measures to minimize harm resulting from unavoidable effects to Section 4(f) resources; coordinate with officials who have jurisdiction over or who administer the lands that will be affected; and determine the applicability or non-applicability of Section 4(f) to a property.

What constitutes a "use" of Section 4(f) resources?

"Use" of Section 4(f) resources can occur when land is temporarily or permanently incorporated into a transportation facility. Short-term, temporary occupancy or effect does not constitute a use under Section 4(f) as long as occupancy is temporary, changes are minimal and land is restored, agency agreements are in place for the temporary resource use, and/or there is a constructive use of land. A constructive use occurs when a project creates noise or vibration that substantially interferes with the use and enjoyment of the resource, aesthetically or visually compromises a resource, or restricts access to that resource.

What study area did we use for the Section 4(f) Evaluation?

In general, we established the study area to include Section 4(f) resources located within 0.25 mile of the proposed improvements. We expanded the horizontal limits of the study area to include one property removed from the boundary of the I-405 right of way to be consistent with the area of potential effect used for the cultural resources investigation conducted as part of the EA.

What Section 4(f) resources might the project affect?

There are four publicly-owned parks and two architecturally historic resources near the proposed Bellevue Nickel Improvement Project right of way. No waterfowl or wildlife

refuges are present in the study area. Exhibit 5.7-1 compares each of the resources with Section 4(f) criteria and identifies Section 4(f) properties. Each of these properties and the study area are shown in Exhibit 5.7-2 and briefly described below.

Mercer Slough Nature Trail

Exhibit 5.7-1. Resources in the Study Areas and Section 4(f) Criteria

Property	Publicly Owned	Open to the Public	Major Purpose is Recreation	Significant as a Park	Section 4(f) Protected Property
Park and Recreation Facilities					
Mercer Slough Nature Park	Yes	Yes	Yes	Yes	Yes
Environmental Education Center	Yes	Yes	Yes	Yes	Yes
Lake-to-Lake Trail and Greenway	Yes	Yes	Yes	Yes	Yes
Kelsey Creek Park	Yes	Yes	Yes	Yes	Yes
Historic Resources					
Norwood Village					Yes[a]
Wilburton Trestle					Yes[b]

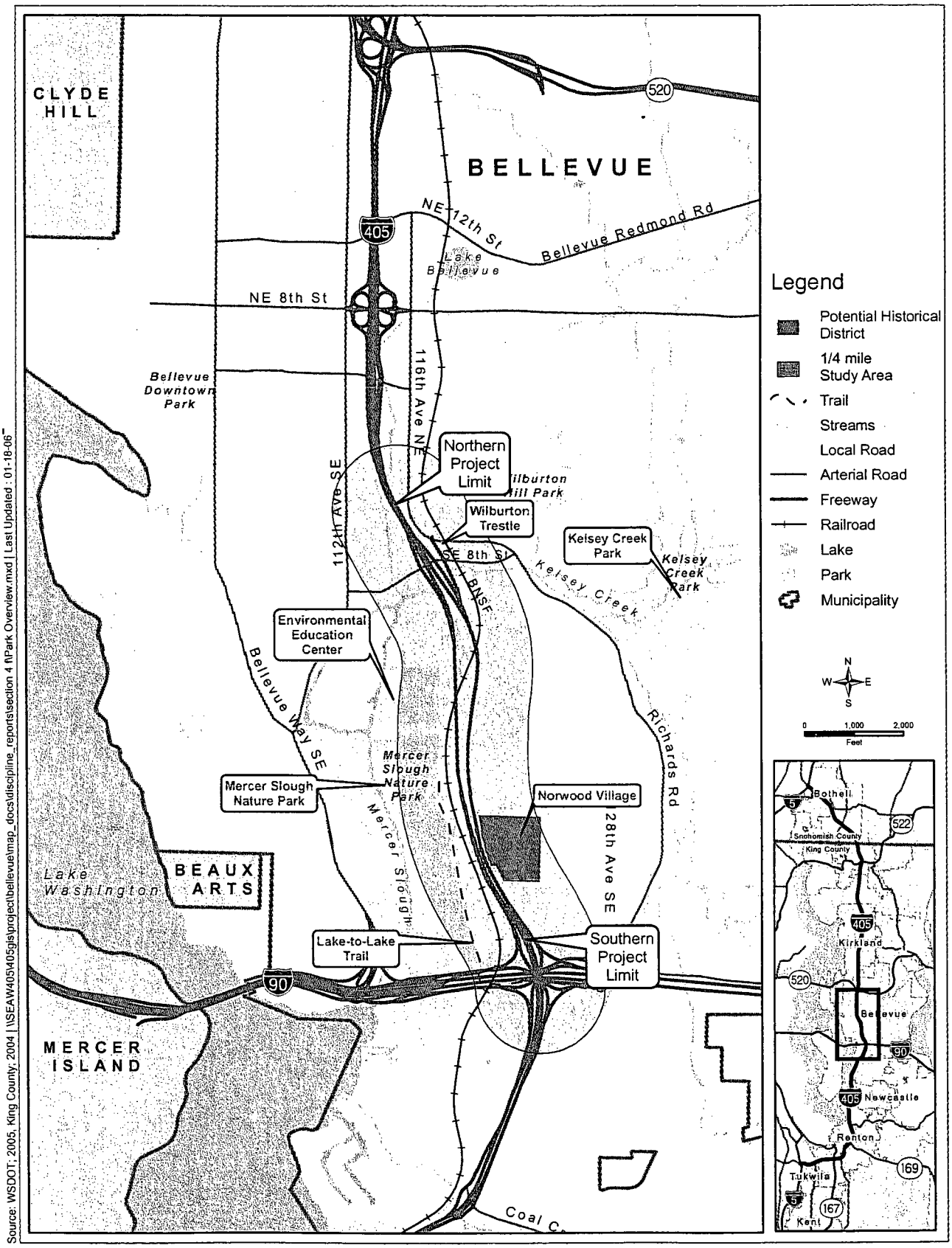
[a]Norwood Village has not been officially determined to be eligible for NRHP listing but because the cultural resource survey concluded that it had the potential to be NRHP- eligible, it is appropriate to treat it as a historic resource for the purposes of determining the potential effects of the project on this possible Section 4(f) resource.

[b]Wilburton Trestle has been determined eligible for listing in the NRHP.

Mercer Slough Nature Park

The 320-acre City of Bellevue Mercer Slough Nature Park provides a variety of recreational experiences. Mercer Slough is Lake Washington's largest wetland. It contains hundreds of plant species; wetlands, slough, and streams; and provides diverse habitat for more than 170 species of wildlife. Visitors travel through this unique urban wetland on elevated boardwalks, soft surface trails, and asphalt paths.

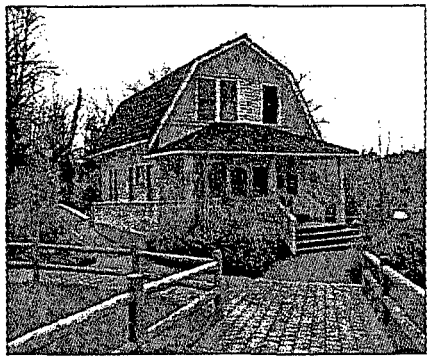
Exhibit 5.7-2. Section 4(f) Resources in the Study Area



Source: WSDOT; 2005, King County; 2004 | \\SEAW405405gis\project\bellevue\map_docs\discipline_reports\section 4 f\Park Overview.mxd | Last Updated : 01-18-06

Environmental Education Center

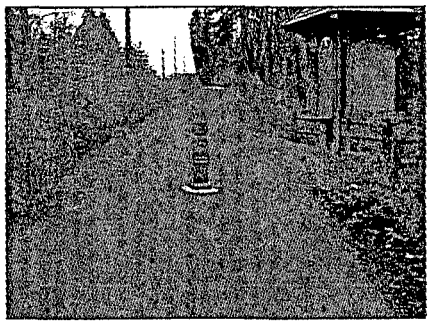
The Environmental Education Center is located immediately north of Mercer Slough Nature Park. The Center currently resides in the Sullivan House, an approximately 70-year-old home that was moved to this site from the Bellevue Downtown Park site. The Center engages children and adults in education programs focusing on environmental stewardship, wetland ecology, and nature awareness. The Environmental Education Center program is a partnership between the Pacific Science Center and the Bellevue Parks and Community Services Department.



Environmental Education Center

Lake-to-Lake Trail and Greenway

The Lake-to-Lake Trail and Greenway extends from Lake Washington to Lake Sammamish. The trail is a work in progress. Major pieces of the trail are in place and final links are being acquired to provide a walking path from Bellevue's Lake Washington beach parks, through the wetlands of Mercer Slough Nature Park, the Botanical Gardens at Wilburton Hill Park, Kelsey Creek Park, the lakes and wildlife in the Lake Hills Greenbelt and finally on to Lake Sammamish. The Lake-to-Lake Trail and Greenway provides a crucial link in the trail system developing throughout the Puget Sound region and also serves as a wildlife migration corridor.



Lake-to-Lake Trail

Kelsey Creek Park

Kelsey Creek Park encompasses 150 acres of forest and wetland habitat in central Bellevue and features more than 2 miles of hiking and jogging trails. The park includes Kelsey Creek Farm, as well as Frazier cabin, built in 1888. The log cabin is one of the City's few remaining pioneer structures and was moved to Kelsey Creek Park in 1974.

West Tributary within Kelsey Creek Park (looking northwest)

Norwood Village

Norwood Village is an example of post-World War II housing that is eligible for listing in the NRHP because it possesses distinctive design characteristics and is associated with important local architects. Its period of significance spans from 1950 to 1955, the design and construction period for the neighborhood. This is not currently a designated historic resource. The property

Typical architecture: Norwood Village

Wilburton Trestle

owners have not requested such designation. Eight houses within this neighborhood are within the Bellevue Nickel Improvement Project cultural resources area of potential effect.

Wilburton Trestle

We also identified the Wilburton Trestle, listed on the Washington Heritage Register and eligible for listing on the NRHP. The trestle lies immediately adjacent to the area of potential effect and is notable for its contribution to the history, architecture, and culture of the State of Washington. The 30-meter timber trestle was originally built in 1904 and was structurally modified several times up until the 1940s.

How will the project use 4(f) resources?

We will not acquire any Section 4(f) lands, either permanently or temporarily, for this project, and the project will have no effect on Mercer Slough, the Environmental Education Center, the Lake-to-Lake Trail and Greenway, Norwood Village, or the Wilburton Trestle.

Kelsey Creek Park

We propose to create just over an acre of wetland to compensate for the permanent loss of wetland within the study area. The proposed wetland mitigation site is located within an undeveloped and unused portion of Kelsey Creek Park, immediately north of the intersection between Richards Road and Lake Hills Connector. Because the proposed wetland mitigation site will enhance this portion of Kelsey Creek Park and will not become part of the I-405 transportation facility, the provisions of Section 4(f) do not apply. Because Section 4(f) protection will not apply, we have not conducted an evaluation on direct, proximity, and construction effects for Kelsey Creek Park.

What did we conclude about the project's use of Section 4(f) resources?

Because we considered and incorporated avoidance alternatives into the Build Alternative, the Bellevue Nickel Improvement Project will not require acquisition of any Section 4(f) resource lands, will not impose any adverse temporary occupancy on resource lands, and will not create any constructive use effects at any of the identified Section 4(f) resources.

5.8 Visual Quality

New landscape plantings along the corridor, at the Southeast 8th Street underpasses, and at the new Wilburton Tunnel will enhance visual quality. New noise and retaining walls will have customized aesthetic design treatments to soften the look and feel of these structures. Downcast and shielded lighting will help minimize glare.

The construction or modification of public highways can have a considerable effect on the quality and character of the landscape, and is a major source of public concern. In addition, federal guidelines require that all actions sponsored, funded, permitted, or approved by federal agencies undergo planning to ensure that aesthetics and visual quality receive due weight in project decision-making.

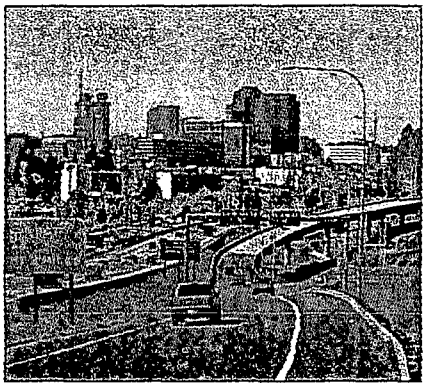
What is our study area for this analysis?

We call the area we studied in this visual quality assessment the project viewshed, and we define the project viewshed as areas that those traveling on I-405 can see from the roadway and the surrounding areas with views toward the project. Typically, if viewers can see an area or a feature from the project, a viewer located in that area or near the feature can also see the project.

What is the visual character of the study area?

The general visual character of the I-405 corridor includes a variety of visual experiences such as forested roadside areas that transition to more open views of valleys and urban landscapes. Even though the area is highly developed, views of Lake Washington, the Cascade Mountains, Mount Rainier, and Bellevue skylines create an exceptional visual backdrop.

The northbound and southbound travel lanes of I-405 parallel the general terrain and are terraced along the hillside within the study area. A wide landscaped median separates the northbound and southbound travel lanes.



The Bellevue skyline from northbound I-405

Please refer to the Bellevue Nickel Improvement Project Visual Quality Discipline Report in Appendix K (on CD) for a complete discussion of the Visual Quality analysis.

What is a Viewshed?

A viewshed is the visible surface area from an observer's point of view. We define viewsheds by what viewers can see from the project and what portions of the project viewers can see from the surrounding area.

How is Visual Quality Determined?

The project team determined the visual quality of existing views using three criteria.

- Vividness is the memorability of landscape components as they combine in striking and distinctive visual patterns.
- Intactness is the visual integrity of the natural and human landscape and its freedom from encroaching elements.
- Unity is the visual coherence and compositional harmony of the landscape considered as a whole (FHWA, 1988).

Plants and structures in surrounding neighborhoods screen the I-405 roadway along much of its edge. Local topography, vegetation, and sound walls limit views toward the roadway in some areas.

What project features will have the greatest effects on visual quality?

The project features that will have the greatest effects on visual quality include:

- Additional areas of pavement due to the creation of new travel lanes.
- Removal of mature plants and trees, particularly within the existing median.
- Construction of the new Wilburton Tunnel.
- Construction of a new retaining wall along the eastern edge of the southbound roadway.
- Placement of a noise wall approximately 16 feet high and 725 feet long along the eastern edge of the I-405 right of way.
- Construction-related activities involving equipment, workers, staging areas, cut-and-fill activities, removal of vegetation in the median, and nighttime lighting.

Exhibit 5.8-1 and Exhibit 5.8-2 on the following page show examples of the project's potential long-term effects associated with the Wilburton Tunnel and the downtown Bellevue skyline.

How will visual changes resulting from the project affect viewers?

The project will result in permanent changes to the visual environment for both I-405 users and neighbors. Although the project-related effects are permanent, we do not consider them substantial.

I-405 Users

The greatest changes southbound motorists will experience in visual quality include:

- Construction of the new Wilburton Tunnel.
- Removal of vegetation along the landscaped median.
- Construction of high retaining walls.

All individual views from the roadway last a relatively short time due to the movement and speed of the viewer.

I-405 Neighbors

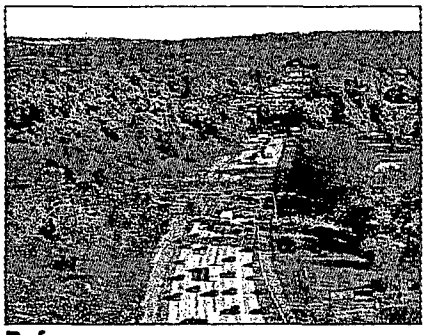
Residents in the Woodridge neighborhood are the most likely to experience visual effects from the proposed project. Terrain, fences, existing noise barriers, and landscape buffers separate most residences along I-405 from the right of way. Some residents in the Woodridge neighborhood may notice changes in their views given their proximity and location above I-405. The removal of landscaping in the median may benefit residents east of I-405 by opening up views to the Olympic Mountains, and Seattle and Bellevue skylines.

Construction of the new noise barrier along the east edge of the I-405 right of way may block views to the west of Lake Washington from the lower level units at Juniper Ridge Apartments.

Businesses that neighbor the study area are likely accustomed to the traffic and sight of the highway. Views from businesses to the right of way are limited to businesses near Southeast 8th Street. These viewers will observe some changes associated with increased light and glare from the additional travel lanes. Some businesses along Southeast 118th Avenue may also see a change in the median landscaping because of vegetation removal necessary to accommodate an additional southbound lane and the construction of the new 50-foot-high retaining wall.

Pedestrians and bicyclists traveling along Southeast 8th Street and Southeast 118th Avenue may experience some visual changes. These visual changes will be minor because existing views to the highway are limited from sidewalks, trails, and bike routes along Southeast 8th Street and Southeast 118th Avenue.

Exhibit 5.8-1. View of the Wilburton Tunnel



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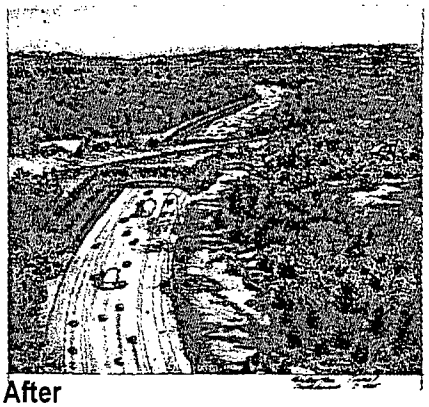
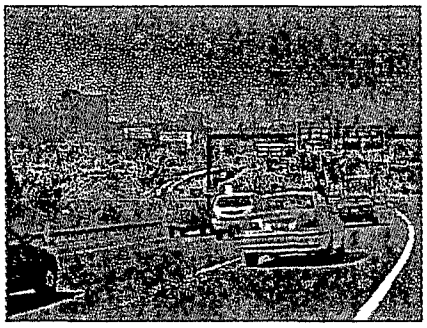


After

Exhibit 5.8-2. View of downtown Bellevue



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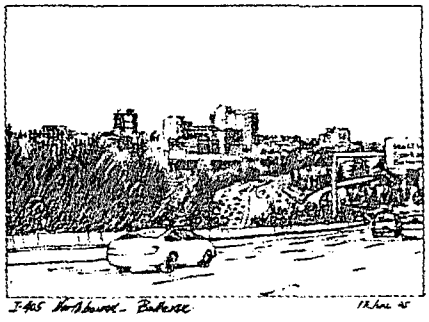

After

What will views be like in the future if we do not build the project?

With the No Build Alternative, views to and from I-405 will remain basically unchanged. Existing vegetation in the median and along the edges of the northbound and southbound lanes will continue to grow and may eventually block some existing views both to and from I-405.

How will project construction temporarily affect visual quality and aesthetics?

Construction-related activities include the presence of equipment and workers, materials, debris, signage, and staging areas. Construction-related activities will temporarily affect I-405 users and neighbors. Potential temporary effects include:

- Temporary lighting used for nighttime construction and the associated light and glare from this lighting.
- Loss of mature vegetation due to clearing and grading operations. Views looking toward I-405 may see more of the roadway as a result of the vegetation removal in some areas. Most of the clearing and grading activities will occur within the median and not near adjacent properties. In some areas, exposure to glare generated by construction (illumination, headlights, construction lighting, and solar reflection) may increase with removal of roadside vegetation.
- Detours, traffic control devices, or lane shifts will require greater driver attention and may distract motorists from views outside the construction areas.

Construction activities are unlikely to affect most views. Temporary clutter may appear in some views because of the presence of construction activities, equipment, stored materials, and general disruption of landscaping with fencing, equipment, vehicles, and lighting.

What have we done to avoid or minimize negative effects on visual quality?

We will avoid and minimize negative effects on visual quality by incorporating the measures described in Appendix B into the project. We have also incorporated context sensitive solutions (CSS) into the project design to minimize the negative visual effects of the project. We developed these design solutions with community input to ensure that community concerns relating to aesthetics and visual quality received attention early in the project. These context sensitive solutions include elements such as new landscaping and plantings along the corridor, terraced wall plantings, and tree and shrub plantings at the Southeast 8th Street underpasses and the new Wilburton Tunnel.

Context Sensitive Solutions is a term used to describe a collaborative, approach whereby a transportation facility is designed with extensive input from the public to fit its physical setting.

In addition, the new noise barrier and retaining walls will have customized aesthetic design treatments to soften the look and feel of these new structures.

Other examples of treatments we will use to avoid or minimize negative effects include using downcast lighting sources, and applying texture and color to concrete walls to reduce apparent scale.

We can address light and glare effects associated with nighttime construction activities by using downcast lighting sources and shielding lighting from nearby properties.

CHAPTER 6

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Name	Contribution	Education Certifications/Licenses Professional Organizations	Years of Experience
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John Verduin *Anchor Environmental*	QA/QC for Geology, Soils & Groundwater	MS, Engineering BS, Geological Engineering	17
Connie Walker-Gray *WSDOT*	QA/QC for Historical, Cultural, Archeological, Sec. 106, Section 4(f)	MA, Urban Planning BA, History and Spanish	5
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CHAPTER 7

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Appendix A

Glossary

Glossary

A-weight	A standard frequency weighting that simulates how humans perceive sound (dBA)
access	The ability to enter or approach a facility or to make use of a facility.
adverse effects	The totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: ▪ bodily impairment, infirmity, illness or death ▪ air, noise, and water pollution and soil contamination ▪ destruction or disruption of human-made natural resources ▪ destruction or diminution of aesthetic values ▪ destruction or disruption of community cohesion or a community's economic vitality ▪ destruction or disruption of the availability of public and private facilities and services ▪ vibration ▪ adverse employment effects ▪ displacement of persons, businesses, farms, or nonprofit organizations ▪ increased traffic congestion, isolation, exclusion or separation of minority or low-income individuals within a given community or from the broader community ▪ denial, of, reduction in, or significant delay in the receipt of benefits of DOT programs, policies, or activities
air quality standards	The level of pollutants prescribed by regulations that may not be exceeded during a given time in a defined area.
ambient	Surrounding atmosphere
anadromous fish	A fish species that spends a part of its life cycle in the sea and returns to freshwater streams to spawn.
area of potential effect	This is the area in which historic properties, if they are present, could be affected by the project either directly or indirectly.
arterial	A major street that primarily serves through traffic, but also provides access to abutting properties. Arterials are often divided into principal and minor classifications depending on the number of lanes, connections made, volume of traffic, nature of traffic, speeds, interruptions (access functions), and length.
basin	The area of land drained by a river and its tributaries, draining water, organic matter dissolved nutrients, and sediments into an ocean, lake, or stream.
best management practices (BMPs)	BMPs are generally accepted techniques that, when used alone or in combination, prevent or reduce adverse effects of a project. Examples include erosion control measures and construction management to minimize traffic disruption. Please see Appendix A for a complete list of BMPs.

Glossary

buffer	A designated area along and adjacent to a stream or wetland that may be regulated to control the negative effects of adjacent development on the aquatic resource.
capacity	The maximum sustained traffic flow of a transportation facility under prevailing traffic and roadway conditions in a specified direction.
chemical oxygen demand	Chimical Oxygen demand is the quantity of oxygen that would be consumed in oxidation of substances in water through chemical reactions. Where COD is high, surface waters may experience a depletion of dissolved oxygen, which is detrimental to aquatic life.
Code of Federal Regulations	The Code of Federal Regulations (CFR) is the codification of the general and permanent rules published in the Federal Register by the executive departments and agencies of the federal government. It is divided into 50 titles that represent broad areas subject to federal regulation. Each volume of the CFR is updated once each calendar year and is issued on a quarterly basis.
congestion	A condition characterized by unstable traffic flows that prohibit movement on a transportation facility at optimal legal speeds. Recurring congestion is caused by regularly occurring excess volume compared with capacity. Nonrecurring congestion is caused by unusual or unpredictable events such as traffic accidents.
coniferous trees	Trees that are usually evergreen and bear cones.
conservation	Defined by the Endangered Species Act (ESA) as the use of all methods and procedures which are necessary to bring any endangered or threatened species to the point at which the measures provided pursuant to the ESA are no longer necessary.
constructive use	A type of indirect use in which a transportation project's proximity impacts (as opposed to direct impacts) are so severe that the protected activities, features, or attributes that qualify a resource for protection under Section 4(f) are substantially impaired. Examples include excessive noise level increases, diminished aesthetic features, ecological intrusions, and other indirect impacts to the resource's environment or utility.
context sensitive solutions (CSS)	A model for transportation project development that has recently received much discussion and broad acceptance. Its essence is that a proposed transportation project must be planned not only for its physical aspects as a road serving specific transportation objectives, but also for its effects on the aesthetic, social, economic, and environmental values, needs, constraints, and opportunities in a larger community setting.
cover types	Cover types describe all natural and modified land covers so that the total area of all cover types equals the area under consideration.
cultural resources	Any historic (or prehistoric) district, site, building, structure, or object that is either listed or eligible for listing on the National Register of Historic Places. Examples include such items as artifacts, records, structures, and remains.
cumulative effect	Effect on the environment which results from the incremental effect of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions. Cumulative effects can result from individually minor but collectively noticeable actions taking place over a period of time.
deciduous trees	Trees that are generally broad- leaved and lose their leaves in winter.

Glossary

delay	Increased travel time experienced by a person or a vehicle because of circumstances that impede the desirable movement of traffic.
direct effect	Effect caused by the proposed action and occurring at the same time and place.
disproportionately high and adverse effect	An adverse effect that: (a) is predominately borne by a minority population and/or a low-income population, or (b) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-minority population and/or non-low-income population.
Ecology	Washington State Department of Ecology
ecosystem	Community of organisms interacting with each other and the environment in which they live.
effect	Includes ecological effects (such as the effects on natural resources and on the components, structures, and functioning of affected ecosystems), aesthetic, historic, cultural, economic, social, or health effects, whether direct, indirect, or cumulative. Effects may include those resulting from actions that may have both beneficial and detrimental effects, even if on balance the agency believes the effect will be beneficial.
eligible	Refers to properties that meet the National Park Service criteria for listing on the National Register of Historic Places.
emergent	A plant that grows rooted in shallow water or saturated soil, where most of the plant emerges from the water or above the ground surface and stands vertically.
emergent wetland	In the USFWS classification system (Cowardin et al. 1979), a wetland characterized by erect, rooted, non-woody plants.
Endangered Species Act (ESA)	The Endangered Species Act provides a means whereby the ecosystems, upon which endangered and threatened species depend, may be conserved to provide a program for the conservation of such species and to take such steps as may be appropriate to achieve the purposes of the treaties and conventions set forth in the act.
environmental justice	Executive Order 12898 provides that each federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations.
equivalent sound level (L_{eq})	The equivalent sound level is widely used to describe environmental noise. It is a measure of the average sound energy during a specified period of time.

Glossary

feasible and prudent	A term that is integral to the Section 4(f) process, feasible and prudent refers to the viability of an alternative that avoids the use of a Section 4(f) resource. The term "feasible" refers to the constructability of a project—whether or not it can be built using current construction methods, technologies, and practices. The term "prudent" refers to how reasonable the alternative is—in essence, whether or not it makes sense. Given a range of options, a transportation agency must select an avoidance alternative rather than adversely impact Section 4(f) resources if it is feasible and prudent. By contrast, an alternative may be rejected if it is not feasible and prudent. An alternative may be considered not feasible and prudent for any of the following reasons: ▪ Does not meet project purpose and need ▪ Excessive cost of construction ▪ Severe operational or safety problems ▪ Unacceptable impacts (social, economic or environmental) ▪ Serious community disruption ▪ A combination of any of the above
Federal Highway Administration (FHWA)	One of several agencies in the U.S. Department of Transportation, the FHWA provides federal financial assistance to the states through the Federal Aid Highway Program, the purpose of which is to construct and improve the National Highway System, urban and rural roads, and bridges.
fill	Soil placed by humans, such as for roads or building foundations.
flood hazard areas	Frequently flooded areas.
floodplain	The area that is subject to periodic flooding. The jurisdictional floodplain area for this project is that area that has a greater than 1% chance of flooding in a given year. We refer to this area as the 100-year floodplain.
forested wetland	In the USFWS classification system (Cowardin et al. 1979), a wetland characterized by woody vegetation that is greater than or equal to 20 feet high.
general-purpose lane	A freeway or arterial lane available for use by all traffic.
hazardous materials	Hazardous materials include any material that, because of its quantity, concentration, or physical or chemical characteristics, may pose a threat to human health or the environment.
herbaceous	Plants that have little or no woody tissue with stems that typically die back each year. Plants persist for one growing season (annuals) or more than one year (perennials).
high-occupancy vehicle (HOV)	Vehicle that carries two or more people, including buses, vanpools, and carpools.
home range	The primary area for an animal's normal activities.
hydrologic	Pertaining to the study of water and its interaction with the environment. Hydrologic effects may include changes in stream flow, flooding, or channel capacity, backwatering at culverts, or other characteristics.

Glossary

impervious surface area	Area that is not permeable to infiltration of precipitation or runoff to groundwater (water will run off this type of surface but not soak in). A high proportion of precipitation that falls onto impervious surfaces drains from the area as stormwater runoff. In contrast, vegetated areas are permeable, and a large proportion of precipitation that falls on vegetated areas is either intercepted by vegetation or infiltrates into the soil.
indirect effect	Effect caused by the proposed action that is later in time or farther removed in distance, but still reasonably foreseeable. Indirect effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems.
jurisdiction	A municipal government agency, such as a city or county. As appropriate, the term "jurisdiction" also includes federal and state agencies.
low-income	A person whose median household income is at or below the Department of Health and Human Services poverty guidelines.
mitigation	An effort to replace land or facilities either with resources that are comparable in value and function, or with monetary compensation that can be used to enhance the remaining land. Specifically for Section 4(f) resources, the cost of mitigation should be a reasonable public expenditure in light of the severity of the impact.
modeling	Use of statistics and mathematical equations to simulate and predict real events and processes.
National Ambient Air Quality Standards	Standards established by the EPA for pollutant concentrations in outside air throughout the country. (See "criteria pollutants" and "state implementation plans.")
National Environmental Policy Act (NEPA)	The National Environmental Policy Act of 1969 (NEPA) is considered to be the basic "National Charter" for protection of the environment. NEPA requires that, to the extent possible, the policies, regulations, and laws of the federal government be interpreted and administered in accordance with the protection goals of the law. It also requires federal agencies to use an interdisciplinary approach in planning and decision making for actions that impact the environment. Finally, NEPA requires the preparation of an environmental impact statement (EIS) on all major federal actions significantly affecting the human environment.
National Register of Historic Places (NRHP)	The Nation's official list of cultural resources worthy of preservation. Authorized under the National Historic Preservation Act of 1966, the National Register is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect our historic and archaeological resources. Properties listed in the register include districts, sites, buildings, structures, and objects that are significant in American history, architecture, archaeology, engineering, and culture. The National Park Service administers the National Register, which is part of the U.S. Department of the Interior.
nickel package	A statewide transportation-funding plan that the Washington State legislature approved in 2003.
noise abatement criteria (NAC)	Noise regulations and guidelines are the basis for evaluating potential noise effects. For state and federally funded highway projects, traffic noise effects occur when predicted noise levels approach or exceed the NAC established by the FHWA.

Glossary

non-native plant	A plant that does not normally grow in the local area. Non-native plants are typically introduced to area by humans.
official with jurisdiction	The legal representative at the agency owning or administering the resource, unless the agency has delegated or relinquished this authority via formal agreement.
off-peak direction	Travel direction of the freeway with the lower demand.
ordinary high water mark (OHWM)	The elevation marking the highest water level that is maintained for a sufficient time to leave evidence upon the landscape, such as a clear, natural line impressed on the bank, changes in soil character, or the presence of litter and debris. Generally, it is the point where the natural vegetation changes from predominately aquatic to upland species.
palustrine	In the USFWS classification system (Cowardin et al. 1979), freshwater areas (having less than 0.5 part per thousand ocean-derived salts) dominated by trees, shrubs, persistent emergents, mosses, or lichens. These areas can be tidal (waters which alternate by rising and falling) or non-tidal. Palustrine also includes wetlands that lack this vegetation but have the following characteristics: (1) area less than 20 acres; (2) no active wave-formed or bedrock shoreline; and, (3) deepest water depth is less than 6.6 feet at low water.
park-and-ride facility	A facility where individuals can park their vehicle for the day and access public transportation or rideshare for the major portion of their trip.
peak	The maximum sound level during a given time interval when the normal frequency and time weighting is not used. The noise measurement instrument has a peak detector that responds rapidly to changing sound levels, unlike the normal time weighting of the instrument.
peak hour	The hour in the morning and in the afternoon when the maximum demand occurs on a given transportation facility or corridor.
peak period	The period of the day during which the maximum amount of travel occurs. It may be specified as the morning (AM), or the afternoon or evening (PM) peak.
pollutant loading	The quantity of a pollutant that discharges to a given point in a drainage area (e.g., to a stream) over a set period of time (e.g., pounds of phosphorus discharged to Mercer Slough per year).
proximity effects	See "Constructive Use."
prudent	See "Feasible and Prudent."
public services	Public services include fire and police protection, schools, parks and recreational facilities, places of worship, and cemeteries.
publicly owned	Property that is owned and/or operated by a public entity. If a governmental body has a proprietary interest in the land (such as fee ownership, drainage easements or wetland easements), it can be considered publicly owned. Land subject to a public easement in perpetuity can also be considered to be publicly owned land for the purpose for which the easement exists.

Glossary

Puget Sound Regional Council (PSRC)	The Metropolitan Planning Organization (MPO) and Regional Transportation Planning Organization (RTPO) for the Central Puget Sound region, which is comprised of Snohomish, King, Pierce, and Kitsap Counties. The MPO and RTPO is the legally mandated forum for cooperative transportation decision-making in a metropolitan planning area.
right of way	Land legally established for public use by pedestrians, vehicles, or utilities.
riparian	Land that occurs along or interacts with flowing water. Pertaining to anything connected with or immediately adjacent to the banks of a stream, river, or other waterbody.
runoff	Rainwater or snowmelt that directly leaves an area as surface drainage.
salmonid	A fish of the family Salmonidae; for example, salmon, trout, and char.
scrub-shrub wetland	In the USFWS classification system (Cowardin et al., 1979), areas dominated by woody vegetation less than 20 feet high, such as trees, shrubs, or young trees that are stunted due to environmental conditions.
Section 106	Under Section 106 of the National Historic Preservation Act of 1966, as amended, federal agencies must identify and evaluate cultural resources and consider how undertakings they fund, license, permit, or assist affect historic properties eligible for inclusion in the National Register of Historic Places. The federal agencies must afford the State Historic Preservation Officer and the Advisory Council on Historic Preservation the opportunity to comment on these undertakings.
Significance (for 4(f) resources)	Significance means that in comparing the availability and function of a Section 4(f) resource with the recreational, park, and refuge objectives of that community, the resource in question plays an important role in meeting those objectives. Barring a determination from the official with jurisdiction to the contrary, the Section 4(f) land will be presumed to be significant. All determinations (whether stated or presumed) are subject to review by FHWA for reasonableness.
snag	The remains of a dead but still standing tree; provides nesting and perching habitat for many wildlife species.
spill prevention control and countermeasures (SPCC) plan	An SPCC Plan is implemented to minimize effects to soil, surface water, and groundwater. The SPCC plan addresses procedures, equipment, and materials used in the event of a spill of contaminated soil, petroleum products, contaminated water or other hazardous substances.
stormwater	Stormwater is that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows overland into a defined surface waterbody or a constructed infiltration facility.
stormwater detention ponds	Ponds constructed to hold stormwater runoff.
study area	The area specifically identified for analysis. Study areas vary among individual resources as scientific convention and practice dictate.

Glossary

temporary occupancy	A temporary occupancy of land is so minimal that it does not constitute a use within the meaning of Section 4(f) when the duration is temporary, the scope of work is minor, there are no anticipated permanent adverse physical impacts, and when the land will be fully restored. There must be documented agreement of the appropriate Federal, State, or local officials having jurisdiction over the resource regarding the above conditions.
throughput	The number of vehicles being carried on a facility. This is usually measured at a specific point on the roadway facility for a predetermined period.
undertaking	A project that is funded or permitted by a federal agency or on federal land that has the potential to affect historic properties.
upland vegetation	Vegetation associated with dry areas away from water or wetlands; vegetation that is not located within the area influenced by a body of water.
use	Generally, "use" occurs with a DOT-approved project or program (1) when land from a Section 4(f) site is acquired for a transportation project, (2) when there is an occupancy of land that is adverse in terms of the statute's preservationist purposes, or (3) when the proximity impact of the transportation project on the Section 4(f) site, without acquisition of land, are so great that the purposes for which the Section 4(f) site exists are substantially impaired.
utilities	Utilities include electricity, natural gas, water, wastewater and stormwater collection, and telecommunications.
utility franchise/permit	The process by which WSDOT authorizes and tracks public and private utility companies to use a utility corridor within the WSDOT right of way.
vehicle	Any car, truck, van, motorcycle, or bus designed to carry passengers or goods.
vibration	An oscillatory motion, which can be described in terms of displacement, velocity, or acceleration.
view	Aspects of the environment that a viewer can see from the study area and what the viewer can see of the project from nearby surroundings.
viewer	Person who has views of or from the project. We usually discuss viewers in terms of general categories of activities, such as resident, motorist, or pedestrian, and we often refer to them as "viewer groups."
viewshed	The area that a viewer can see from the project and surrounding area.
visual character	Impartially describes what exists within the landscape. Both natural and built landscape features and their relationships make up the character of an area or view. The perception of visual character can vary significantly between seasons and can even vary between hours as weather, light, shadow, and the elements that compose the viewshed change. The basic components used to describe visual character for most visual assessments are the elements of form, line, color, and texture of the landscape features. To further define visual character, the appearance of the landscape is described in terms of its dominant features, scale, diversity, and continuity.

Glossary

visual quality	An assessment of the visual character, which identifies the character-defining features for selected views.
watershed	The region of land that drains into a specific body of water, such as a river, lake, sea, or ocean. Rain that falls anywhere within a given body of water's watershed will eventually drain into that body of water.
wetland	*Wetlands are formally defined by the U.S. Army Corps of Engineers (Federal Register,* 1982), the US Environmental Protection Agency (Federal Register 1988), the Washington Shoreline Management Act of 1971 (SMA) (Ecology 1991), and the Growth Management Act (GMA) (Ecology 1992) as: ... those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas (Federal Register 1982, 1986). The SMA and the GMA definitions add: Wetlands do not include those artificial wetlands intentionally created from non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990 that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificially created wetlands intentionally created from non-wetland areas to mitigate the conversion of wetlands.
WSDOT standard specifications	Guidelines and procedures established by WSDOT for roadway design and construction in a variety of design, engineering, and environmental manuals.

Appendix B

Avoidance and Minimization Measures

Avoidance and Minimization Measures

The following sections describe the established design and construction practices that WSDOT will include to avoid or minimize effects to the various environmental resources during both the construction and operation phases of the project.

Project Measures to Avoid or Minimize Effects During Construction

Design elements, such as modifications to boundaries of areas that can be affected, have been incorporated into the project specifications, construction plans, and procedures, to help avoid or minimize most potential construction impacts. When appropriate, monitoring will be conducted to ensure that these design and construction measures are effective.

Measures for Geology, Soils, and Groundwater

- WSDOT will prepare and implement a Temporary Erosion and Sedimentation Control (TESC) plan consisting of operational and structural measures to control the transport of sediment. Operational measures include removing mud and dirt from trucks before they leave the site, covering fill stockpiles or disturbed areas, and avoiding unnecessary vegetation clearing. Structural measures are temporary features used to reduce the transport of sediment, such as silt fences and sediment traps.
- WSDOT will reduce degradation of moisture-sensitive soils by limiting major earthwork to the drier, late spring through early fall construction season; by maintaining proper surface drainage to avoid ponding of surface water or groundwater; by minimizing ground disturbance through limiting the use of heavy equipment, limiting turns, and/or not tracking directly on the subgrade; and by covering the final subgrade elevation with a working mat of crushed rock and/or geotextile for protection. Mixing a soil admix such as cement into the subgrade may also add strength and stabilize the ground.
- WSDOT will determine acceptable limits for off-site construction-related ground vibration before construction begins and demonstrate that off-site ground vibrations are within the limits set for the project through the use of vibration-monitoring equipment.
- WSDOT will identify areas subject to shaking from a large earthquake and will mitigate risks using ground modifications or other procedures identified in the WSDOT Geotechnical Design Manual.
- WSDOT will implement construction procedures identified in the geotechnical investigation to maintain or enhance slope stability in areas potentially underlain by landslide-prone soils.
- WSDOT will protect the Kelsey Creek aquifer from contamination by construction-related spills by development and implementation of BMPs and a Spill Prevention Control and

Countermeasures plan (SPCC). The SPCC plan will specifically address fuel spills from vehicles and from spills of other chemicals commonly transported over I-405. Spill response equipment will be located at regular and specified intervals within the project area for minimizing countermeasure response times.

- WSDOT will ensure only clean fill is imported and placed for the project and will require documentation for fill brought onto the site from the supplier certifying that the fill does not exceed Washington State soil cleanup standards. If documentation is not available, testing of imported fill soils will be required prior to placement. Suspect soils encountered during project construction will be tested and, where necessary, removed from the site and disposed of in accordance with Washington State regulations.
- WSDOT will identify and develop staging areas for equipment repair and maintenance away from all drainage courses. Washout from concrete trucks will not be dumped into storm drains or onto soil or pavement that carries stormwater runoff. A wash down area for equipment and concrete trucks will be designated and the use of thinners and solvents to wash oil, grease, or similar substances from heavy machinery or machine parts will be prohibited.
- WSDOT will obtain a NPDES (National Pollutant Discharge Elimination System) permit and will conduct a regular program of testing and lab work to ensure that water encountered during construction meets the water quality standards specified in the NPDES permit.
- WSDOT will meet the NPDES water quality standards prior to the discharge of the encountered water to a surface water body, such as Kelsey Creek. If necessary, water quality will be improved, such as by using sediment ponds to allow sediment to settle out prior to discharge.
- If it is necessary to install seepage drains to control seepage for retaining walls and fill embankments, WSDOT will include special provisions in the design to discharge drain flow back into affected areas, including wetlands.

Measures for Water Quality

In addition to measures for geology, soils, groundwater, and for hazardous materials that are protective of water quality, the following measures would be implemented for water quality.

- WSDOT will identify and develop staging areas for equipment repair and maintenance away from all drainage courses.
- Washout from concrete trucks will not be dumped into storm drains or onto soil or pavement that carries stormwater runoff.
- Thinners and solvents will not be used to wash oil, grease, or similar substances from heavy machinery or machine parts.
- WSDOT will designate a wash down area for equipment and concrete trucks.

Measures for Wetlands

- WSDOT will protect, preserve, and enhance wetlands in the project area during the planning, construction, and operation of transportation facilities and projects consistent with USDOT Order 5660.1A, Executive Order 11990, and Governor's Executive Orders EO 89-10 and EO 90-04.
- WSDOT's project-level design and environmental review has included avoidance, minimization, restoration, and compensation of wetlands. WSDOT will implement these measures prior to or concurrent with adverse effects on wetlands, to reduce temporal losses of wetland functions.
- WSDOT will follow guidance contained in the wetlands section of the WSDOT Environmental Procedures Manual (WSDOT 2004a), which outlines the issues and actions to be addressed prior to authorizing work that could affect wetlands.
- WSDOT will use high-visibility fencing to clearly mark wetlands to be avoided in the construction area.

Measures for Upland Vegetation and Wildlife

- WSDOT will ensure mitigation measures established in the I-405 Corridor EIS will be implemented on the Bellevue Nickel Improvement Project.
- WSDOT will prepare and implement a revegetation plan. In addition, areas with mixed forest will not be removed for temporary use (i.e., construction staging). If an area of mixed forest must be removed for roadway construction, it will be replaced with plantings of native tree and shrub species within the affected area.
- WSDOT will adhere to project conditions identified in the Biological Assessment and agency concurrence letters.
- WSDOT will limit construction activity to a relatively small area immediately adjacent to the existing roadway to minimize vegetation clearing and leave as many trees as possible.

Measures for Fisheries and Aquatic Resources

- WSDOT will implement construction BMPs (such as silt fencing or sedimentation ponds) to avoid disturbing sensitive areas during the development and use of any staging areas, access roads, and turnouts associated with resurfacing activities.
- WSDOT will not allow in-water work to occur except during seasonal work windows established to protect fish.
- WSDOT will require that all stormwater treatment wetland/detention facilities are sited and constructed at a sufficient distance from named and unnamed streams so no grading or filling in the streams or the streamside zones will be required.

Measures for Air Quality

- WSDOT will require preparation and implementation of a Fugitive Dust Control Plan in accordance with the Memorandum of Agreement between WSDOT and PSCAA Regarding Control of Fugitive Dust from Construction Projects (October 1999).
- During dry weather, exposed soil will be sprayed with water to reduce emissions of and deposition of particulate matter (PM_{10}).
- WSDOT will provide aequate freeboard (space from the top of the material to the top of the truck), cover truckloads, and, in dry weather, wet materials in trucks to reduce emission of and deposition of particulate matter during transport.
- WSDOT use wheel washers to remove particulate matter that would otherwise be carried offsite by vehicles to decrease deposition of particulate matter on area roadways.
- WSDOT will remove particulate matter deposited on public roads to reduce mud on area roadways.
- WSDOT will cover or spray with water any dirt, gravel, and debris piles during periods of high wind when the stockpiles are not in use to control dust and transmissions of particulate matter.
- WSDOT will route and schedule construction trucks to reduce travel delays and unnecessary fuel consumption during peak travel times, and therefore reduce secondary air quality impacts (i.e. emissions of carbon monoxide and nitrogen oxides) that result when vehicles slow down to wait for construction trucks.

Measures for Noise

- Noise berms and barriers will be erected prior to other construction activities to provide noise shielding.
- The noisiest construction activities, such as pile driving, will be limited to between 7 AM and 10 PM to reduce construction noise levels during sensitive nighttime hours.
- Construction equipment engines will be equipped with adequate mufflers, intake silencers, and engine enclosures.
- Construction equipment will be turned off during prolonged periods of nonuse to eliminate noise.
- All equipment will be maintained appropriately and equipment operators will be trained in good practices to reduce noise levels.
- Stationary equipment will be stored away from receiving properties to decrease noise.
- Temporary noise barriers or curtains will be constructed around stationary equipment that must be located close to residences.
- Resilient bed liners will be required in dump trucks to be loaded on site during nighttime hours.

- WSDOT use Occupational Safety and Health Administration (OSHA)-approved ambient sound-sensing backup alarms that would reduce disturbances during quieter periods.

Measures for Hazardous Materials

Known or Suspected Contamination within the Build Alternative Right of Way

- WSDOT will prepare an SPCC plan that provides specific guidance for managing contaminated media that may be encountered within the right of way (ROW).
- WSDOT may be responsible for remediation and monitoring of any contaminated properties acquired for this project. WSDOT will further evaluate the identified properties before acquisition or construction occurs. Contamination in soils will be evaluated relative to the Model Toxics Control Act (MTCA).
- If WSDOT encounters an underground storage tank (UST) within the ROW, WSDOT will assume cleanup liability for the appropriate decommissioning and removal of USTs. If this occurs, WSDOT will follow all applicable rules and regulations associated with UST removal activities.
- WSDOT will conduct thorough asbestos-containing material/lead paint building surveys by an Asbestos Hazard Emergency Response Act (AHERA)-certified inspector on all property structures acquired or demolished. WSDOT will properly remove and dispose of all asbestos-containing material/lead-based paint in accordance with applicable rules and regulations.
- Construction waste material such as concrete or other harmful materials will be disposed of at approved sites in accordance with Sections 2-01, 2-02, and 2-03 of the WSDOT Standard Specifications.
- WSDOT may acquire the responsibility for cleanup of any soil or groundwater contamination encountered during construction (that must be removed from the project limits) within WSDOT ROW. Contamination will be evaluated relative to Model Toxics Control Act (MTCA) cleanup levels.
- WSDOT will consider entering into pre-purchaser agreements for purpose of indemnifying itself against acquiring the responsibility for any long-term cleanup and monitoring costs.
- All regulatory conditions imposed at contaminated properties (e.g., Consent Decree) associated with construction will be met. These conditions could include ensuring that the surrounding properties and population are not exposed to the contaminants on the site: i.e., WSDOT will ensure that the site is properly contained during construction so that contaminants do not migrate offsite, thereby protecting the health and safety of all on-site personnel during work at the site.

Known or Suspected Contamination Outside of the Right of Way

- Contaminated groundwater originating from properties located up-gradient of the ROW could migrate to the project area. WSDOT generally will not incur liability for groundwater contamination that has migrated into the project footprint as long as the agency does not

acquire the source of the contamination. However, WSDOT will manage the contaminated media in accordance with all applicable rules and regulations.

Unknown Contamination

- If unknown contamination is discovered during construction, WSDOT will follow the SPCCP as well as all appropriate regulations.

Worker and Public Health and Safety and other Regulatory Requirements

The WSDOT will comply with the following regulations and agreements:

- State Dangerous Waste Regulations (Chapter 173-303 WAC);
- Safety Standards for Construction Work (Chapter 296-155 WAC);
- National Emission Standards for Hazardous Air Pollutants (CFR, Title 40, Volume 5, Parts 61 to 71);
- General Occupational Health Standards (Chapter 296-62 WAC); and
- Implementing Agreement between Ecology and WSDOT Concerning Hazardous Waste Management (April 1993).

Hazardous Materials Spills During Construction

- WSDOT will prepare and implement a SPCCP to minimize or avoid effects on human health, soil, surface water and groundwater.

Measures for Traffic and Transportation

- WSDOT will coordinate with local agencies and other projects to prepare and implement a Traffic Management Plan (TMP) prior to making any changes to the traffic flow or lane closures. WSDOT willl inform the public, school districts, emergency service providers, and transit agencies of the changes ahead of time through a public information process. Pedestrian and bicycle circulation will be maintained as much as possible during construction.
- Prior to and during construction, WSDOT will implement strategies to manage the demand on transportation infrastructure. These transportation demand management strategies will form an important part of the construction management program and will be aimed at increasing public awareness and participation in HOV travel. The major focus will be on expanding vanpooling and van-share opportunities. Other elements of the transportation demand management plan may include:
    - increased HOV awareness and public information, and
    - work-based support and incentives.

Measures for Visual Quality

- WSDOT will follow the I-405 Urban Design Criteria. Where the local terrain and placement of light poles allow, the WSDOT will reduce light and glare effects by shielding roadway lighting and using downcast lighting so light sources will not be directly visible from residential areas and local streets.
- WSDOT will restore (revegetate) construction areas in phases rather than waiting for the entire project to be completed.

Measures for Neighborhoods, Businesses, Public Services and Utilities

- WSDOT will prepare and implement a transportation management plan (TMP). If local streets must be temporarily closed during construction, WSDOT will provide detour routes clearly marked with signs.
- WSDOT will coordinate with school districts before construction.
- WSDOT will implement and coordinate the TMP with all emergency services prior to any construction activity.
- WSDOT will coordinate with utility providers prior to construction to identify conflicts and resolve the conflicts prior to or during construction. Potential utility conflicts within WSDOT ROW will be relocated at the utility's expense prior to contract award.
- WSDOT will prepare a consolidated utility plan consisting of key elements such as existing locations, potential temporary locations and potential new locations for utilities; sequence and coordinated schedules for utility work; and detailed descriptions of any service disruptions. This plan will be reviewed by and discussed with affected utility providers prior to the start of construction.
- WSDOT will field verify the exact locations and depths of underground utilities prior to construction.
- WSDOT will notify neighborhoods of utility interruptions by providing a scheduled of construction activities in those areas.
- WSDOT will coordinate with utility franchise holders and provide them with project schedules to minimize the effects of utility relocations (for example, equipment procurement times, relocation ahead of construction, etc.)
- WSDOT will notify and coordinate with fire departments for water line relocations that may affect water supply for fire suppression, and establish alternative supply lines prior to any breaks in service; and to ensure that fire departments can handle all calls during construction periods and to alleviate the potential for increased response times.
- WSDOT will notify and coordinate with police departments to implement crime prevention principles and to ensure that they have adequate staffing to provide traffic and pedestrian control.

- WSDOT will maintain access to businesses throughout the construction period through careful planning of construction activities and an awareness of the needs to provide adjacent properties with reasonable access during business hours. As part of construction management, WSDOT will prepare access measures. WSDOT will make provisions for posting appropriate signs to communicate the necessary information to potential customers.
- WSDOT will keep daytime street closures to a minimum to provide access for businesses during regular business hours.

Measures for Cultural Resources

- WSDOT will prepare an Unanticipated Discovery Plan for the project that WSDOT will follow. This will avoid or minimize unanticipated effects to historic, cultural, and archaeological resources.

Project Measures to Avoid or Minimize Effects During Project Operation

The following sections describe the measures that WSDOT will implement during project operation.

Measures for Surface Waters and Water Quality

- WSDOT will follow the Highway Runoff Manual for both the design and implementation of stormwater facilities. WSDOT is not required to manage flow where drainage is directly to Mercer Slough. Where drainage is to a tributary to Mercer Slough, WSDOT will construct a stormwater management system that does provide flow control.

Measures for Fisheries and Aquatic Resources

- WSDOT will compensate for adverse effects to fish habitat and aquatic resources by providing in-kind mitigation. This in-kind mitigation will take the form of on-site, off-site, or a combination of on- and off-site mitigation.
- Off-site mitigation could include planting native riparian vegetation outside of the study area in areas where restoring native riparian buffers may have a greater benefit to fish and aquatic species. Mitigation could be concentrated along streams with high fish use where important stream processes and functions related to riparian buffers (for example, large woody debris [LWD] recruitment levels, litter fall, and bank stabilization) are impaired.
- On-site/off-site mitigation could include installing in-stream habitat features (for example, boulders or LWD) in the streambed downstream of the project footprint to increase the habitat complexity of the affected waterbody.

- Ongoing maintenance (during and post-construction) of stormwater treatment and detention facilities by WSDOT will not include the application of any chemical weed control agents (e.g., herbicides).

Measures for Upland Vegetation and Wildlife

- WSDOT will replace areas of mixed forest that will be permanently removed for roadway construction with plantings of native tree and shrub species within the affected area.

Appendix C

Agency and Tribal Correspondences

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
Urban Corridors Office
6431 Corson Avenue South
Seattle, Washington 98108
206-768-5881
TTY: 1-800-833-6388
www.wsdot.wa.gov

December 3, 2003

The Honorable Cecile Hansen, Chair
Duwamish Tribe
14235 Ambaum Blvd SW
Burien, WA 98166-1464

Re: I-405 Congestion Relief and Bus Rapid Transit Projects.

Dear Chair Hansen:

The Washington State Department of Transportation (WSDOT), in cooperation with the Federal Highway Administration and Federal Transit Administration, has initiated project-level design refinements and a NEPA Environmental Assessment (EA) for the North Renton section of the I-405 Congestion Relief and Bus Rapid Transit Projects. This is the first of a number of projects to be advanced out of the I-405 Corridor Program. The proposed I-405 North Renton Project will involve improvements within the I-405 corridor from the Cedar River crossing, including the SR-169 interchange, north to the Coal Creek Parkway interchange near I-90, a distance of approximately six miles. The WSDOT also will initiate other I-405 project EAs in the first half of 2004 for corridor improvements that include the remaining portions of I-405 from I-5 in Tukwila north to SR 522 in Bothell.

The WSDOT has hired Historical Research Associates, Inc. (HRA) to conduct a review of natural and cultural resources, and assess the potential for impacts. As a part of this effort, we would like to meet with you to review the enclosed map and your tribe's concerns for potential impacts on natural and cultural resources, including any traditional cultural properties, in the vicinity of the project area. However, we would like to take the opportunity of a meeting with you to discuss not only the North Renton project but the remaining I-405 projects as well including the sections of the I-405 from 1-5 in Tukwila north to SR 522 in Bothell.

We realize that some of your information may be sensitive and we are willing to work closely with you to discuss potential measures to avoid, minimize, or mitigate impacts to the extent feasible, while avoiding the disclosure of detailed information on the nature and location of confidential places.

In order to better understand your views, Christina Martinez, the I-405 Environmental Lead will contact you next week to discuss the projects with you. We would be pleased to meet with you in your tribal offices and/or visit the project area with you.

Allison Ray, WSDOT environmental coordinator, has recently contacted you to set up a meeting time to update you on a number of transportation projects that the Federal

Highway Administration (FHWA) and Washington State Department of Transportation (WSDOT) are undertaking. The I-405 Congestion Relief and Bus Rapid Transit Projects, are only some of these projects. Others include the Alaskan Way Viaduct and Seawall Replacement Project, and SR 520 Bridge Replacement and HOV Project. If you are agreeable, we can combine our efforts by attending that meeting to begin our initial consultations with you. In the meantime, please contact Christina Martinez at (206) 464-1225, if you have any questions or need additional information.

Sincerely,

Craig Stone, PE
I-405 Urban Project Director

Encl: Project Map
Cc: Jim Leonard, Federal Highway Administration
John Witmer, Federal Transit Administration
Christina Martinez, I-405 Environmental Lead
Allison Ray, AWVSRP Environmental Coordinator
WSDOT Urban Corridor Office
Alex Maass, Project Archaeologist
Historical Research Associates, Inc.

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
Urban Corridors Office
6431 Corson Avenue South
Seattle, Washington 98108
206-768-5861
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December 3, 2003

Honorable Joseph O. Mullen, Chair
Snoqualmie Tribe
P.O. Box 280
Carnation, WA 98014

Re: I-405 Congestion Relief and Bus Rapid Transit Projects.

Dear Chair Mullen:

The Washington State Department of Transportation (WSDOT), in cooperation with the Federal Highway Administration and Federal Transit Administration, has initiated project-level design refinements and a NEPA Environmental Assessment (EA) for the North Renton section of the I-405 Congestion Relief and Bus Rapid Transit Projects. This is the first of a number of projects to be advanced out of the I-405 Corridor Program. The proposed I-405 North Renton Project will involve improvements within the I-405 corridor from the Cedar River crossing, including the SR-169 interchange, north to the Coal Creek Parkway interchange near I-90, a distance of approximately six miles. The WSDOT also will initiate other I-405 project EAs in the first half of 2004 for corridor improvements that include the remaining portions of I-405 from I-5 in Tukwila north to SR 522 in Bothell.

The WSDOT has hired Historical Research Associates, Inc. (HRA) to conduct a review of natural and cultural resources, and assess the potential for impacts. As a part of this effort, we would like to meet with you to review the enclosed map and your tribe's concerns for potential impacts on natural and cultural resources, including any traditional cultural properties, in the vicinity of the project area. However, we would like to take the opportunity of a meeting with you to discuss not only the North Renton Project but the remaining portions of the I-405 projects as well including the sections of the I-405 from 1-5 in Tukwila north to SR 522 in Bothell.

We realize that some of your information may be sensitive and we are willing to work closely with you to discuss potential measures to avoid, minimize, or mitigate impacts to the extent feasible, while avoiding the disclosure of detailed information on the nature and location of confidential places.

In order to better understand your views, Christina Martinez, the I-405 Environmental Lead will contact you next week to discuss the projects with you. We would be pleased to meet with you in your tribal offices and/or visit the project area with you.

Allison Ray, WSDOT environmental coordinator, has recently contacted you to set up a meeting time to update you on a number of transportation projects that the Federal Highway Administration (FHWA) and Washington State Department of

Transportation (WSDOT) are undertaking. The I-405 Congestion Relief and Bus Rapid Transit Projects, are only some of these projects. Others include the Alaskan Way Viaduct and Seawall Replacement Project, and SR 520 Bridge Replacement and HOV Project. If you are agreeable, we can combine our efforts by attending that meeting to begin our initial consultations with you. In the meantime, please contact Christina Martinez at (206) 464-1225, if you have any questions or need additional information.

Sincerely,

Craig Stone, PE
I-405 Urban Project Director

Encl: Project Map
Cc: John Witmer, Federal Transit Administration
Jim Leonard, Federal Highway Administration
Christina Martinez, I-405 Environmental Lead
Allison Ray, AWVSRP Environmental Coordinator
WSDOT Urban Corridor Office
Alex Maass, Project Archaeologist
Historical Research Associates, Inc.

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
Urban Corridors Office
6431 Corson Avenue South
Seattle, Washington 98108

206-768-5881
TTY: 1-800-833-6388
www.wsdot.wa.gov

December 3, 2003

Honorable John Daniels Jr., Chair
Muckleshoot Tribe
39015 172nd Avenue SE
Auburn, WA 98092

Re: I-405 Congestion Relief and Bus Rapid Transit Projects

Dear Chair Daniels:

The Washington State Department of Transportation (WSDOT), in cooperation with the Federal Highway Administration and Federal Transit Administration, has initiated project-level design refinements and a NEPA Environmental Assessment (EA) for the North Renton section of the I-405 Congestion Relief and Bus Rapid Transit Projects. This is the first of a number of projects to be advanced out of the I-405 Corridor Program, which the Muckleshoot Tribe previously provided valuable input to. The proposed I-405 North Renton Project will involve improvements within the I-405 corridor from the Cedar River crossing, including the SR-169 interchange, north to the Coal Creek Parkway interchange near I-90, a distance of approximately six miles. The WSDOT also will initiate other I-405 project EAs in the first half of 2004 for corridor improvements that include the remaining portions of I-405 from I-5 in Tukwila north to SR 522 in Bothell.

The WSDOT has hired Historical Research Associates, Inc. (HRA) to conduct a review of natural and cultural resources, and assess the potential for impacts. As a part of this effort, we would like to meet with you to review the enclosed map and your tribe's concerns for potential impacts on natural and cultural resources, including any traditional cultural properties, in the vicinity of the project area. However, we would like to take the opportunity of a meeting with you to discuss not only the North Renton Project but the remaining I-405 projects as well including the sections of the I-405 from 1-5 in Tukwila north to SR 522 in Bothell.

We realize that some of your information may be sensitive and we are willing to work closely with you to discuss potential measures to avoid, minimize, or mitigate impacts to the extent feasible, while avoiding the disclosure of detailed information on the nature and location of confidential places.

In order to better understand your views, Christina Martinez, the I-405 Environmental Lead will contact you next week to discuss the projects with you. We would be pleased to meet with you in your tribal offices and/or visit the project area with you.

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Sincerely,

Craig Stone, PE
I-405 Urban Project Director

Encl: Project Map
Cc: Donna Hogerhuis, Cultural Resources Director
Jim Leonard, Federal Highway Administration
John Witmer, Federal Transit Administration
Christina Martinez, I-405 Environmental Lead
Allison Ray, AWVSRP Environmental Coordinator
WSDOT Urban Corridor Office
Alex Maas, Project Archaeologist
Historical Research Associates, Inc.

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
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Seattle, Washington 98108
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www.wsdot.wa.gov

December 3, 2003

Honorable Bennie J. Armstrong, Chair
Suquamish Tribe
P.O. Box 498
Suquamish, WA 98392-0498

Re: I-405 Congestion Relief and Bus Rapid Transit Projects

Dear Chair Armstrong:

The Washington State Department of Transportation (WSDOT), in cooperation with the Federal Highway Administration and Federal Transit Administration, has initiated project-level design refinements and a NEPA Environmental Assessment (EA) for the North Renton section of the I-405 Congestion Relief and Bus Rapid Transit Projects. This is the first of a number of projects to be advanced out of the I-405 Corridor Program. The proposed I-405 North Renton Project will involve improvements within the I-405 corridor from the Cedar River crossing, including the SR-169 interchange, north to the Coal Creek Parkway interchange near I-90, a distance of approximately six miles. The WSDOT also will initiate other I-405 project EAs in the first half of 2004 for corridor improvements that include the remaining portions of I-405 from I-5 in Tukwila north to SR 522 in Bothell.

The WSDOT has hired Historical Research Associates, Inc. (HRA) to conduct a review of natural and cultural resources, and assess the potential for impacts. As a part of this effort, we would like to meet with you to review the enclosed map and your tribe's concerns for potential impacts on natural and cultural resources, including any traditional cultural properties, in the vicinity of the project area. However, we would like to take the opportunity of a meeting with you to discuss not only the North Renton Project but the remaining I-405 projects as well including the sections of the I-405 from 1-5 in Tukwila north to SR 522 in Bothell.

We realize that some of your information may be sensitive and we are willing to work closely with you to discuss potential measures to avoid, minimize, or mitigate impacts to the extent feasible, while avoiding the disclosure of detailed information on the nature and location of confidential places.

In order to better understand your views, Christina Martinez, the I-405 Environmental Lead will contact you next week to discuss the projects with you. We would be pleased to meet with you in your tribal offices and/or visit the project area with you.

Allison Ray, WSDOT environmental coordinator, has recently contacted you to set up a meeting time to update you on a number of transportation projects that the Federal Highway Administration (FHWA) and Washington State Department of

Transportation (WSDOT) are undertaking. The I-405 Congestion Relief and Bus Rapid Transit Projects, are only some of these projects. Others include the Alaskan Way Viaduct and Seawall Replacement Project, and SR 520 Bridge Replacement and HOV Project. If you are agreeable, we can combine our efforts by attending that meeting to begin our initial consultations with you. In the meantime, please contact Christina Martinez at (206) 464-1225, if you have any questions or need additional information.

Sincerely,

Craig Stone, PE
I-405 Urban Project Director

Encl: Project Map
Cc: Charlie Sigo, Cultural Resources Specialist
Jim Leonard, Federal Highway Administration
John Witmer, Federal Transit Administration
Christina Martinez, I-405 Environmental Lead
Allison Ray, AWVSRP Environmental Coordinator
WSDOT Urban Corridor Office
Alex Maass, Project Archaeologist
Historical Research Associates, Inc.

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
Urban Corridors Office
6431 Corson Avenue South
Seattle, Washington 98108
206-768-5881
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December 3, 2003

The Honorable Herman A. Williams, Jr.
Chair, Tulalip Tribe
6700 Totem Beach Road
Marysville, WA 98270-9694

Re: I-405 Congestion Relief and Bus Rapid Transit Projects

Dear Chair Williams:

The Washington State Department of Transportation (WSDOT), in cooperation with the Federal Highway Administration and Federal Transit Administration, has initiated project-level design refinements and a NEPA Environmental Assessment (EA) for the North Renton section of the I-405 Congestion Relief and Bus Rapid Transit Projects. This is the first of a number of projects to be advanced out of the I-405 Corridor Program. The proposed I-405 North Renton Project will involve improvements within the I-405 corridor from the Cedar River crossing, including the SR-169 interchange, north to the Coal Creek Parkway interchange near I-90, a distance of approximately six miles. The WSDOT also will initiate other I-405 project EAs in the first half of 2004 for corridor improvements that include the remaining portions of I-405 from I-5 in Tukwila north to SR 522 in Bothell.

The WSDOT has hired Historical Research Associates, Inc. (HRA) to conduct a review of natural and cultural resources, and assess the potential for impacts. As a part of this effort, we would like to meet with you to review the enclosed map and your tribe's concerns for potential impacts on natural and cultural resources, including any traditional cultural properties, in the vicinity of the project area. However, we would like to take the opportunity of a meeting with you to discuss not only the North Renton Project but the remaining portions of the I-405 projects as well including the sections of the I-405 from I-5 in Tukwila north to SR 522 in Bothell.

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Sincerely,

Craig Stone, PE
I-405 Urban Project Director

Encl: Project Map
Cc: Hank Gobin, Cultural Resources Manager
Jim Leonard, Federal Highway Administration
John Witmer ,Federal Transit Administration
Christina Martinez, I-405 Environmental Lead
Allison Ray, AWVSRP Environmental Coordinator
WSDOT Urban Corridor Office
Alex Maas, Project Archaeologist
Historical Research Associates, Inc.

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
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6431 Corson Avenue South
Seattle, Washington 98108
206-768-5881
TTY: 1-800-833-6388
www.wsdot.wa.gov

RECEIVED DEC 0 5 2003

December 4, 2003

The Honorable Ross Sockzehigh, Chair
Yakama Nation
P.O. Box 151
Toppenish, WA 98948

Re: I-405 Congestion Relief and Bus Rapid Transit Projects

Dear Chair Williams:

The Washington State Department of Transportation (WSDOT), in cooperation with the Federal Highway Administration and Federal Transit Administration, has initiated project-level design refinements and a NEPA Environmental Assessment (EA) for the North Renton section of the I-405 Congestion Relief and Bus Rapid Transit Projects. This is the first of a number of projects to be advanced out of the I-405 Corridor Program. The proposed I-405 North Renton Project will involve improvements within the I-405 corridor from the Cedar River crossing, including the SR-169 interchange, north to the Coal Creek Parkway interchange near I-90, a distance of approximately six miles. The WSDOT also will initiate other I-405 project EAs in the first half of 2004 for corridor improvements that include the remaining portions of I-405 from I-5 in Tukwila north to SR 522 in Bothell.

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In order to better understand your views, Christina Martinez, the I-405 Environmental Lead will contact you next week to discuss the projects with you. We would be pleased to meet with you in your tribal offices and/or visit the project area with you.

Allison Ray, WSDOT environmental coordinator, has recently contacted you to set up a meeting time to update you on a number of transportation projects that the Federal Highway Administration (FHWA) and Washington State Department of

Transportation (WSDOT) are undertaking. The I-405 Congestion Relief and Bus Rapid Transit Projects, are only some of these projects. Others include the Alaskan Way Viaduct and Seawall Replacement Project, and SR 520 Bridge Replacement and HOV Project. If you are agreeable, we can combine our efforts by attending that meeting to begin our initial consultations with you. In the meantime, please contact Christina Martinez at (206) 464-1225, if you have any questions or need additional information.

Sincerely,

Craig Stone, PE
I-405 Urban Project Director

Encl: Project Map
Cc: Johnson Meninick, Cultural Resources Director
Jim Leonard, Federal Highway Administration
John Witmer ,Federal Transit Administration
Christina Martinez, I-405 Environmental Lead
Allison Ray, AWVSRP Environmental Coordinator
WSDOT Urban Corridor Office
Alex Maas, Project Archaeologist
Historical Research Associates, Inc.

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
Urban Corridors Office
401 Second Avenue South, Suite 560
Seattle, WA 98104-3850
206-464-1220 / Fax 206-464-1190
TTY: 1-800-833-6388
www.wsdot.wa.gov

May 9, 2005

Duwamish Tribe
Honorable Cecile Hansen, Chair
4117 West Marginal Way SW
Seattle, WA 98106

Re: I-405 Bellevue Nickel Improvement Project, King County, Washington
Area of Potential Effects (APE)

Dear Chairperson Hansen:

The Washington State Department of Transportation (WSDOT), on behalf of Federal Highway Administration (FHWA), is preparing an Environmental Assessment (EA) to document the environmental consequences and possible mitigation measures for the I-405 Bellevue Nickel Improvement Project.

Pursuant to compliance with Section 106 of the National Historic Preservation Act (NHPA), we are continuing consultation for this project. Paul Krueger, I-405 Bellevue Nickel Improvement Project Environmental Manager, initiated consultation in a letter dated March 24, 2005. We now seek your concurrence on the proposed Area of Potential Effect (APE). Enclosed please find a map that describes the APE for this project.

Project Description

The I-405 Bellevue Nickel Improvement Project extends along I-405 from the I-90 interchange to Southeast 8th Street in Bellevue. The project compliments the Bellevue Access project currently under construction in the downtown area. Highway improvements being studied include:

- One new northbound lane between I-90 and Southeast 8th Street and one new southbound lane between Northeast 4th Street and I-90. These will be constructed on the median side of the existing roadway.
- A new Wilburton Tunnel will be constructed to accommodate an eastward shift of the southbound mainline roadway.
- Two bridges will also be widened: one in the northbound direction over the Burlington Northern Santa Fe railroad, and one in the southbound direction over SE 8th Street.

Proposed Area of Potential Effect (APE)

The cultural resources APE for the Bellevue Nickel Improvement Project was determined by a windshield survey of the project area, which involved driving along I-405 and on surface roads adjacent to the project. The goal of the windshield survey was to determine the extent to which the project has the potential to affect historic properties. Following 36 CFR 800.16, a potential "effect" is viewed as an alteration to the characteristics of a property that make it eligible for the National Register of Historic Places. Such alterations can be direct and indirect. Direct effects

include physical alteration, displacement, or destruction of a historic property. Indirect effects include those likely to affect the property through significant changes to the character of the viewshed, noise increase, and/or significant vibration increase.

The Bellevue Nickel Improvement Project APE includes approximately one legal property on either side of the I-405 right-of-way. The proposed APE for this project reflects the extent to which the property has the potential to affect historic properties indirectly. The project will only directly affect historic properties that are within the footprint of the project. Other effects, if any, will be indirect.

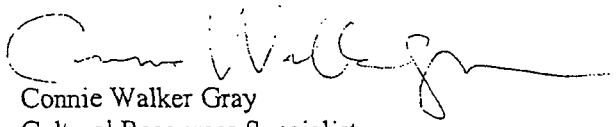
There is also a proposed wetland mitigation area near Kelsey Creek just east of the right of way. Proposed mitigation would affect approximately two acres of this site.

Direct effects will most likely be limited to unknown archaeological resources. The areas most likely to contain archaeological resources that have not previously been destroyed by roadway construction include proposed stormwater detention ponds, proposed wetlands mitigation areas, and the area where the new tunnel will be excavated.

All historic buildings, structures, sites, and objects within the APE constructed in or prior to 1960 will be documented. Electronic copies of Historic Property Inventory Forms using the Historic Property Inventory Database will be prepared for all properties that have not been surveyed within the last five years. Any properties surveyed within the last five years will be re-photographed and checked in the field to verify condition and integrity. Inventory forms will be updated as necessary. If encountered, archaeological sites will be recorded on OAHP Site Forms.

We look forward to your concurrence on our Area of Potential Effect (APE) for this project. Please respond to this request by June 9, 2005. If you have knowledge of traditional cultural properties in or near the proposed project area, or should you have concerns regarding the project, lease contact me at 206.464.1236, email grayc@wsdot.wa.gov, or Allison Ray, Environmental Manger, at 425.456.8610, email rayalli@wsdot.wa.gov.

Sincerely,



Connie Walker Gray
Cultural Resources Specialist

Enclosures

cc: Paul Krueger, WSDOT
Jim Leonard, Federal Highway Administration
Brad Bowden, Historical Research Associates (HRA)

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
Urban Corridors Office
401 Second Avenue South, Suite 560
Seattle, WA 98104-3850
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www.wsdot.wa.gov

May 9, 2005

Snoqualmie Indian Tribe
Honorable Joseph O. Mullen, Chair
PO Box 280
Carnation, WA 98014
ATTN: Kellie D. Kvasnikoff

Re: I-405 Bellevue Nickel Improvement Project, King County, Washington
Area of Potential Effects (APE)

Dear Mr. Kvaskikoff:

The Washington State Department of Transportation (WSDOT), on behalf of Federal Highway Administration (FHWA), is preparing an Environmental Assessment (EA) to document the environmental consequences and possible mitigation measures for the I-405 Bellevue Nickel Improvement Project.

Pursuant to compliance with Section 106 of the National Historic Preservation Act (NHPA), we are continuing consultation for this project. Paul Krueger, I-405 Bellevue Nickel Improvement Project Environmental Manager, initiated consultation in a letter dated March 24, 2005. We now seek your concurrence on the proposed Area of Potential Effect (APE). Enclosed please find a map that describes the APE for this project.

Project Description

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- A new Wilburton Tunnel will be constructed to accommodate an eastward shift of the southbound mainline roadway.
- Two bridges will also be widened: one in the northbound direction over the Burlington Northern Santa Fe railroad, and one in the southbound direction over SE 8th Street.

Proposed Area of Potential Effect (APE)

The cultural resources APE for the Bellevue Nickel Improvement Project was determined by a windshield survey of the project area, which involved driving along I-405 and on surface roads adjacent to the project. The goal of the windshield survey was to determine the extent to which the project has the potential to affect historic properties. Following 36 CFR 800.16, a potential "effect" is viewed as an alteration to the characteristics of a property that make it eligible for the National Register of Historic Places. Such alterations can be direct and indirect. Direct effects include physical alteration, displacement, or destruction of a historic property. Indirect effects

include those likely to affect the property through significant changes to the character of the viewshed, noise increase, and/or significant vibration increase.

The Bellevue Nickel Improvement Project APE includes approximately one legal property on either side of the I-405 right-of-way. The proposed APE for this project reflects the extent to which the property has the potential to affect historic properties indirectly. The project will only directly affect historic properties that are within the footprint of the project. Other effects, if any, will be indirect.

There is also a proposed wetland mitigation area near Kelsey Creek just east of the right of way. Proposed mitigation would affect approximately two acres of this site.

Direct effects will most likely be limited to unknown archaeological resources. The areas most likely to contain archaeological resources that have not previously been destroyed by roadway construction include proposed stormwater detention ponds, proposed wetlands mitigation areas, and the area where the new tunnel will be excavated.

All historic buildings, structures, sites, and objects within the APE constructed in or prior to 1960 will be documented. Electronic copies of Historic Property Inventory Forms using the Historic Property Inventory Database will be prepared for all properties that have not been surveyed within the last five years. Any properties surveyed within the last five years will be re-photographed and checked in the field to verify condition and integrity. Inventory forms will be updated as necessary. If encountered, archaeological sites will be recorded on OAHP Site Forms.

We look forward to your concurrence on our Area of Potential Effect (APE) for this project. Please respond to this request by June 9, 2005. If you have knowledge of traditional cultural properties in or near the proposed project area, or should you have concerns regarding the project, please contact me at 206.464.1236, email grayc@wsdot.wa.gov, or Allison Ray, Environmental Manger, at 425.456.8610, email rayalli@wsdot.wa.gov.

Sincerely,

Connie Walker Gray

Connie Walker Gray
Cultural Resources Specialist
Washington State Department of Transportation

Enclosures

cc: Paul Krueger, WSDOT
Jim Leonard, Federal Highway Administration
Brad Bowden, Historical Research Associates (HRA)

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
Urban Corridors Office
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www.wsdot.wa.gov

May 9, 2005

Muckleshoot Tribe
Honorable John Daniels Jr., Chair
39015 172nd Avenue SE
Auburn, WA 98092-9763
ATTN: Donna Hogerhuis

Re: I-405 Bellevue Nickel Improvement Project, King County, Washington
Area of Potential Effects (APE)

Dear Ms. Hogerhuis:

The Washington State Department of Transportation (WSDOT), on behalf of Federal Highway Administration (FHWA), is preparing an Environmental Assessment (EA) to document the environmental consequences and possible mitigation measures for the I-405 Bellevue Nickel Improvement Project.

Pursuant to compliance with Section 106 of the National Historic Preservation Act (NHPA), we are continuing consultation for this project. Paul Krueger, I-405 Bellevue Nickel Improvement Project Environmental Manager, initiated consultation in a letter dated March 24, 2005. We now seek your concurrence on the proposed Area of Potential Effect (APE). Enclosed please find a map that describes the APE for this project.

Project Description

The I-405 Bellevue Nickel Improvement Project extends along I-405 from the I-90 interchange to Southeast 8th Street in Bellevue. The project compliments the Bellevue Access project currently under construction in the downtown area. Highway improvements being studied include:

- One new northbound lane between I-90 and Southeast 8th Street and one new southbound lane between Northeast 4th Street and I-90. These will be constructed on the median side of the existing roadway.
- A new Wilburton Tunnel will be constructed to accommodate an eastward shift of the southbound mainline roadway.
- Two bridges will also be widened: one in the northbound direction over the Burlington Northern Santa Fe railroad, and one in the southbound direction over SE 8th Street.

Proposed Area of Potential Effect (APE)

The cultural resources APE for the Bellevue Nickel Improvement Project was determined by a windshield survey of the project area, which involved driving along I-405 and on surface roads adjacent to the project. The goal of the windshield survey was to determine the extent to which the project has the potential to affect historic properties. Following 36 CFR 800.16, a potential "effect" is viewed as an alteration to the characteristics of a property that make it eligible for the National Register of Historic Places. Such alterations can be direct and indirect. Direct effects include physical alteration, displacement, or destruction of a historic property. Indirect effects

include those likely to affect the property through significant changes to the character of the viewshed, noise increase, and/or significant vibration increase.

The Bellevue Nickel Improvement Project APE includes approximately one legal property on either side of the I-405 right-of-way. The proposed APE for this project reflects the extent to which the property has the potential to affect historic properties indirectly. The project will only directly affect historic properties that are within the footprint of the project. Other effects, if any, will be indirect.

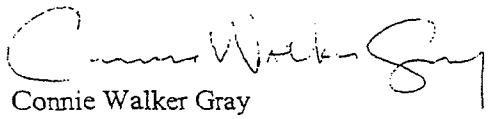
There is also a proposed wetland mitigation area near Kelsey Creek just east of the right of way. Proposed mitigation would affect approximately two acres of this site.

Direct effects will most likely be limited to unknown archaeological resources. The areas most likely to contain archaeological resources that have not previously been destroyed by roadway construction include proposed stormwater detention ponds, proposed wetlands mitigation areas, and the area where the new tunnel will be excavated.

All historic buildings, structures, sites, and objects within the APE constructed in or prior to 1960 will be documented. Electronic copies of Historic Property Inventory Forms using the Historic Property Inventory Database will be prepared for all properties that have not been surveyed within the last five years. Any properties surveyed within the last five years will be re-photographed and checked in the field to verify condition and integrity. Inventory forms will be updated as necessary. If encountered, archaeological sites will be recorded on OAHP Site Forms.

We look forward to your concurrence on our Area of Potential Effect (APE) for this project. Please respond to this request by June 9, 2005. If you have knowledge of traditional cultural properties in or near the proposed project area, or should you have concerns regarding the project, please contact me at 206.464.1236, email grayc@wsdot.wa.gov, or Allison Ray, Environmental Manger, at 425.456.8610, email rayalli@wsdot.wa.gov.

Sincerely,



Connie Walker Gray
Cultural Resources Specialist
Washington State Department of Transportation

Enclosures

cc: Paul Krueger, WSDOT
Jim Leonard, Federal Highway Administration
Brad Bowden, Historical Research Associates (HRA)

-----Original Message-----
From: Donna Hogerhuis [mailto:donna.hogerhuis@muckleshoot.nsn.us]
Sent: Thursday, May 12, 2005 3:04 PM
To: Gray, Connie
Subject: RE: Contract 6913, Archaeological Impacts

RE: I-405 Nickel Improvement Project, King County WA
Request for review of APE

This e-mail is in response to your letter dated May 9th regarding the APE for the I-405 Nickel Improvement Project, King County WA. Please note my comments to page two of your letter, fourth paragraph.

1. The paragraph implies that where road construction has taken place previously potential sites in this area have been destroyed. I was left with a feeling that further study is not needed along the actual roadbed. This can be misleading as sites can and do exist below areas of fill or construction and if the road bed area is not available for survey work but will be reconstructed (excavation) then a monitor should be present during grubbing activities.

2. Areas to add to "mostly likely to contain archaeological resources" are shoreline areas of water bodies, streams and rivers (existing and historic flows), staging areas and borrow pits.

3. If sites are encountered a there will need to be an MOA /treatment plan proposed for the discovered site. This should be discussed in the APE.

Thank you for the opportunity to comment on the APE for the I-405 Nickel Improvement Project.

Donna Hogerhuis, Cultural Specialist
Muckleshoot Indian Tribe
39015 172nd St SE
Auburn WA 98092
donna.hogerhuis@muckleshoot.nsn.us
Ph. 253-876-3273

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
Urban Corridors Office
401 Second Avenue South, Suite 560
Seattle, WA 98104-3850
206-464-1220 / Fax 206-464-1190
TTY: 1-800-833-6388
www.wsdot.wa.gov

May 9, 2005

Yakama Tribe
Honorable Jerrick Meninick, Chair
PO Box 151
Toppenish, WA 98948
Attn: Mr. Johnson Meninick

Re: I-405 Bellevue Nickel Improvement Project, King County, Washington
Area of Potential Effects (APE)

Dear Mr. Meninick:

The Washington State Department of Transportation (WSDOT), on behalf of Federal Highway Administration (FHWA), is preparing an Environmental Assessment (EA) to document the environmental consequences and possible mitigation measures for the I-405 Bellevue Nickel Improvement Project.

Pursuant to compliance with Section 106 of the National Historic Preservation Act (NHPA), we are continuing consultation for this project. Paul Krueger, I-405 Bellevue Nickel Improvement Project Environmental Manager, initiated consultation in a letter dated March 24, 2005. We now seek your concurrence on the proposed Area of Potential Effect (APE). Enclosed please find a map that describes the APE for this project.

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Proposed Area of Potential Effect (APE)

The cultural resources APE for the Bellevue Nickel Improvement Project was determined by a windshield survey of the project area, which involved driving along I-405 and on surface roads adjacent to the project. The goal of the windshield survey was to determine the extent to which the project has the potential to affect historic properties. Following 36 CFR 800.16, a potential "effect" is viewed as an alteration to the characteristics of a property that make it eligible for the National Register of Historic Places. Such alterations can be direct and indirect. Direct effects include physical alteration, displacement, or destruction of a historic property. Indirect effects

include those likely to affect the property through significant changes to the character of the viewshed, noise increase, and/or significant vibration increase.

The Bellevue Nickel Improvement Project APE includes approximately one legal property on either side of the I-405 right-of-way. The proposed APE for this project reflects the extent to which the property has the potential to affect historic properties indirectly. The project will only directly affect historic properties that are within the footprint of the project. Other effects, if any, will be indirect.

There is also a proposed wetland mitigation area near Kelsey Creek just east of the right of way. Proposed mitigation would affect approximately two acres of this site.

Direct effects will most likely be limited to unknown archaeological resources. The areas most likely to contain archaeological resources that have not previously been destroyed by roadway construction include proposed stormwater detention ponds, proposed wetlands mitigation areas, and the area where the new tunnel will be excavated.

All historic buildings, structures, sites, and objects within the APE constructed in or prior to 1960 will be documented. Electronic copies of Historic Property Inventory Forms using the Historic Property Inventory Database will be prepared for all properties that have not been surveyed within the last five years. Any properties surveyed within the last five years will be re-photographed and checked in the field to verify condition and integrity. Inventory forms will be updated as necessary. If encountered, archaeological sites will be recorded on OAHP Site Forms.

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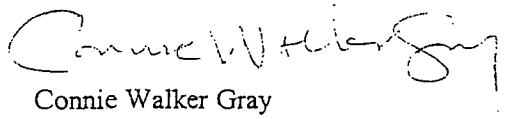
Sincerely,



Connie Walker Gray
Cultural Resources Specialist
Washington State Department of Transportation

Enclosures

cc: Paul Krueger, WSDOT
Jim Leonard, Federal Highway Administration
Brad Bowden, Historical Research Associates (HRA)

INTERSTATE 405 Corridor Program
Congestion Relief & Bus Rapid Transit Projects

600 – 108th Avenue NE, Suite 405
Bellevue, WA 98004
Main 425-456-8500
Fax 425-456-8600

December 12, 2005

The Honorable Cecile Hansen
Duwamish Tribe
4717 West Marginal Way SW
Seattle, WA 98106

RE: I-405 Bellevue Nickel Improvement Project King County – Cultural Resource Discipline Report

Dear Chairperson Hansen:

Per provisions of 36CFR800, the I-405 Team is continuing consultation for the above project. A copy of the Cultural Resource Discipline Report (dated November 2005), which summarizes the cultural resources assessment conducted for the above project is attached. The Area of Potential Effect (APE) for this project includes all areas of ground disturbance—including demolition, construction, staging, equipment storage locations, stormwater management facilities, and wetland and stream mitigation sites—as well as one additional parcel on either side of the I-405 corridor outside of the ground disturbance area. Investigations included primary and secondary source background research, reconnaissance survey, subsurface archaeological investigations, and documentation of all historic resources 50 years old and older.

As noted in the report, WSDOT encountered no archaeological resources as a result of this investigation. WSDOT did identify the Washington Historic Register (WHR)-listed and National Register of Historic Preservation (NRHP)-eligible Wilburton Trestle (45KI242) within the APE. Only a small portion of the trestle is within the APE, and this portion will not be directly or indirectly affected by this project. The project will actually result in the I-405 footprint moving further away from the Wilburton Trestle.

Further, WSDOT historians identified a previously unrecorded historic district—Norwood Village—along the east side of the project area. Norwood Village is a post-WWII suburban development designed by prominent local architecture firms of Bassetti and Morse and Chairelli and Kirk. It is eligible for listing in the National Register under Criterion C for possessing distinctive design characteristics. Eight houses within this neighborhood are within the APE, and have been recorded on the Department of Archeology and Historic Preservation (DAHP) historic property inventory database as part of this study. The I-405 Bellevue Nickel Improvement Project will have no direct or indirect effect on the district. As described in the Discipline Report, a noise study was conducted at ten separate locations within and immediately adjacent to Norwood Village. The results of the noise study show that current and anticipated noise levels in Norwood Village are within the acceptable range.

In summary, although historic or potentially historic properties are located within the APE, there will be no effect to these properties as a result of this undertaking. WSDOT will follow an Inadvertent Discovery Plan throughout the construction of the project.

If you have knowledge of traditional cultural properties in or near the proposed project area, or should you have concerns regarding the project, please contact Connie Walker Gray or myself at (206)464-1236 and (425)456-8610 respectively no later than January 17, 2006. Thank you for your interest in the project.

Sincerely,

Allison Ray
WSDOT I-405 Environmental Manager

Enclosure

cc: Jim Leonard, FHWA
Matt Sterner, DAHP
Connie Walker Gray, WSDOT - UCO
Colleen Jollie, WSDOT

INTERSTATE 405 Corridor Program
Congestion Relief & Bus Rapid Transit Projects

600 – 108th Avenue NE, Suite 405
Bellevue, WA 98004
Main 425-456-8500
Fax 425-456-8600

December 12, 2005

The Honorable John Daniels, Jr.
Muckleshoot Indian Tribe
39015 172nd Avenue SE
Auburn, WA 98092

RE: I-405 Bellevue Nickel Improvement Project King County – Cultural Resource Discipline Report

Dear Chairperson Daniels:

Per provisions of 36CFR800, the I-405 Team is continuing consultation for the above project. The Cultural Resource Discipline Report (dated November 2005), summarizes the cultural resources assessment for the above project. A copy has been sent to your cultural resource specialist. The Area of Potential Effect (APE) for this project includes all areas of ground disturbance—including demolition, construction, staging, equipment storage locations, stormwater management facilities, and wetland and stream mitigation sites—as well as one additional parcel on either side of the I-405 corridor outside of the ground disturbance area. Investigations included primary and secondary source background research, reconnaissance survey, subsurface archaeological investigations, and documentation of all historic resources 50 years old and older.

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If you have knowledge of traditional cultural properties in or near the proposed project area, or should you have concerns regarding the project, please contact Connie Walker Gray or myself at (206)464-1236 and (425)456-8610 respectively no later than January 17, 2006. Thank you for your interest in the project.

Sincerely,

Allison Ray
WSDOT I-405 Environmental Manager

cc: Laura Murphy – Muckleshoot Cultural Resources (attachment)
Jim Leonard, FHWA
Matt Sterner, DAHP
Connie Walker Gray, WSDOT - UCO
Colleen Jollie, WSDOT

INTERSTATE 405 Corridor Program
Congestion Relief & Bus Rapid Transit Projects

600 – 108th Avenue NE, Suite 405
Bellevue, WA 98004
Main 425-456-8500
Fax 425-456-8600

December 12, 2005

The Honorable Bill Sweet
Snoqualmie Tribe
P.O. Box 280
Carnation, WA 98014

RE: I-405 Bellevue Nickel Improvement Project King County – Cultural Resource Discipline Report

Dear Chairperson Sweet:

Per provisions of 36CFR800, The I-405 Team is continuing consultation for the above project. The Cultural Resource Discipline Report (dated November 2005) summarizes the cultural resources assessment for the above project. A copy has been sent to your cultural resource specialist. The Area of Potential Effect (APE) for this project includes all areas of ground disturbance—including demolition, construction, staging, equipment storage locations, stormwater management facilities, and wetland and stream mitigation sites—as well as one additional parcel on either side of the I-405 corridor outside of the ground disturbance area. Investigations included primary and secondary source background research, reconnaissance survey, subsurface archaeological investigations, and recordation of all historic resources 50 years old and older.

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Sincerely,

Allison Ray
WSDOT I-405 Environmental Manager

Enclosure

cc: Kellie Kvasnikoff, Snoqualmie Cultural Resources (Attachment)
Matt Sterner, DAHP
Jim Leonard, FHWA
Connie Walker Gray, WSDOT - UCO
Colleen Jollie, WSDOT

INTERSTATE 405 Corridor Program
Congestion Relief & Bus Rapid Transit Projects

600 – 108th Avenue NE, Suite 405
Bellevue, WA 98004
Main 425-456-8500
Fax 425-456-8600

December 12, 2005

The Honorable Ross Sockzehigh
Yakama Nation
P.O. Box 151
Toppenish, WA 98948

RE: I-405 Bellevue Nickel Improvement Project King County – Cultural Resource Discipline Report

Dear Chairperson Sockzehigh:

Per provisions of 36CFR800, The I-405 Team is continuing consultation for the above project. The Cultural Resource Discipline Report (dated November 2005), summarizes the cultural resources assessment for the above project. A copy has been sent to your cultural resource specialist. The Area of Potential Effect (APE) for this project includes all areas of ground disturbance—including demolition, construction, staging, equipment storage locations, stormwater management facilities, and wetland and stream mitigation sites—as well as one additional parcel on either side of the I-405 corridor outside of the ground disturbance area. Investigations included primary and secondary source background research, reconnaissance survey, subsurface archaeological investigations, and recordation of all historic resources 50 years old and older.

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If you have knowledge of traditional cultural properties in or near the proposed project area, or should you have concerns regarding the project, please contact Connie Walker Gray or myself at (206)464-1236 and (425)456-8610 respectively no later than January 17, 2006. Thank you for your interest in the project.

Sincerely,

Allison Ray
WSDOT I-405 Environmental Manager

Enclosure

cc: Johnson Meninick, Yakama Cultural Resources (Attachment)
Jim Leonard, FHWA
Matt Sterner, DAHP
Connie Walker Gray, WSDOT - UCO
Colleen Jollie, WSDOT

INTERSTATE 405 Corridor Program
Congestion Relief & Bus Rapid Transit Projects

600 – 108th Avenue NE, Suite 405
Bellevue, WA 98004
Main 425-456-8500
Fax 425-456-8600

December 12, 2005

The Honorable Stanley Jones
The Tulalip Tribes
6700 Totem Beach Road
Tulalip, WA 98271-9694

RE: I-405 Bellevue Nickel Improvement Project King County – Cultural Resource Discipline Report

Dear Chairperson Jones:

Per provisions of 36CFR800, The I-405 Team is continuing consultation for the above project. The Cultural Resource Discipline Report (dated November 2005), summarizes the cultural resources assessment for the above project. A copy has been sent to your cultural resource specialist. The Area of Potential Effect (APE) for this project includes all areas of ground disturbance—including demolition, construction, staging, equipment storage locations, stormwater management facilities, and wetland and stream mitigation sites—as well as one additional parcel on either side of the I-405 corridor outside of the ground disturbance area. Investigations included primary and secondary source background research, reconnaissance survey, subsurface archaeological investigations, and recordation of all historic resources 50 years old and older.

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Sincerely,

Allison Ray
WSDOT I-405 Environmental Manager

Enclosure

cc: Hank Gobin, Tribal Cultural Resources Manager (Attachment)
Jim Leonard, FHWA
Matt Sterner, DAHP
Connie Walker Gray, WSDOT - UCO
Colleen Jollie, WSDOT

INTERSTATE 405 Project Team
Congestion Relief & Bus Rapid Transit Projects

I-405 Project Temporary Location
600 – 108th Avenue NE, Suite 320
Bellevue, WA 98004
Fax: 425-453-4050

February 11, 2004

Dr. Allyson Brooks
State Historic Preservation Officer
1063 S. Capital Way, Suite 106
PO Box 48343
Olympia, WA 98504-8343

Mr. Craig Holstine
Washington State Department of Transportation
Environmental Services Office
PO Box 47332
Olympia, WA 98504-7332

RE: FHWA/WSDOT I-405 Area of Potential Effects Determination

Dear Dr. Brooks:

Pursuant to compliance with the National Historic Preservation Act and implementing regulations 36CFR800, the Federal Highway Administration (FHWA) and Washington State Department of Transportation (WSDOT) are beginning consultation and cultural resource studies for the I-405 Congestion Relief and Bus Rapid Transit Projects. There will be four projects in all including the North Renton, South Renton, Kirkland, and Bellevue segments.

FHWA/WSDOT have contracted with Historical Research Associates Inc., (HRA) to conduct the cultural resource work. In consultation with WSDOT, the staff at HRA has reviewed the development plans for the projects to recommend an Area Of Potential Effects (APE) for archaeological and historic structures survey.

For archaeology, HRA recommends that the APE be limited to the extent of ground disturbance resulting from construction activities. The area of ground disturbance for these projects will equal 100 feet either side of the I-405 roadway, as well as locations for ramps, interchanges, temporary construction areas, and other features. As FHWA/WSDOT foresees no disturbance to the ground surface outside of this allowance HRA feels that impacts to potential cultural resources will be confined to this area. Previous construction, including filling and banking, of the existing I-405 roadway may have already impacted some areas within 100 feet of the roadway.

The archaeological investigations will be focused upon High Probability Areas (HPAs), defined in the project's Programmatic EIS as "areas adjacent to water courses or lakes". The

Programmatic EIS identifies only the most significant and sensitive HPAs within the project corridor however, smaller streams, creeks and lakes will also be considered for investigation.

HRA archaeologists will conduct a pedestrian survey of HPAs spaced at transects no wider than 20-meter intervals. Shovel scrapes to expose mineral soil and auger or shovel probes in alluvial areas considered highly sensitive for the potential presence of subsurface archaeological remains will be conducted at the discretion of the archaeological field supervisor. The survey will take into account historical changes to the APE such as rerouting of streams.

For historic structure survey, HRA recommends an APE limited to one city block either side of the right-of-way. In areas where there is considerable open space between the existing highway and adjacent buildings, the APE will include buildings and structures adjacent to this open space. This will assure that historic resources proximate to the right-of-way are surveyed. Given the existing presence of an interstate highway in the project area and WSDOT's plans to limit the proposed improvements to an area within 100 feet of either side of the existing roadway, we believe that this APE will encompass any historic buildings or structures with the potential to be affected by the proposed improvements.

Alex Maass, of Historical Research Associates Inc., will contact your office next week to discuss our proposed APE with you. On behalf of FWHA and WSDOT, we thank you in advance for your time, and look forward to talking with you.

Sincerely,

Craig Stone
Project Director
Washington State Department of Transportation

Encl. Project Map

CC: Greg Griffith
Deputy State Historic Preservation Officer

CC: Christina Martinez
I-405 Environmental Lead

CC: Honorable John Daniels Jr., Chair
Muckleshoot Tribe

CC: Laura Murphy
Archaeologist, Muckleshoot Tribe

CC: The Honorable Cecile Hansen, Chair
Duwamish Tribe

CC: The Honorable Herman A. Williams, Jr.
Chair, Tulalip Tribe

CC: Hank Gobin
Cultural Resources Manager, Tulalip Tribe

CC: Honorable Bennie J. Armstrong, Chair
Suquamish Tribe

CC: Charlie Sigo,
Cultural Resources Specialist, Suquamish Tribe

CC: Honorable Joseph O. Mullen, Chair
Snoqualmie Tribe

CC: Alex Maas, Project Archaeologist
Historical Research Associates, Inc.

CC: I-405 Project File

Washington State Department of Transportation
Douglas B. MacDonald
Secretary of Transportation

Northwest Washington Division
Urban Corridors Office
401 Second Avenue South, Suite 560
Seattle, WA 98104-3850
206-464-1220 / Fax 206-464-1190
TTY: 1-800-833-6388
www.wsdot.wa.gov

May 9, 2005

Allyson Brooks, Ph.D.
State Historic Preservation Officer
Office of Archaeology and Historic Preservation
1063 S. Capitol Way, Suite 106
Olympia, WA 98504-8343
MS-48343

Re: I-405 Bellevue Nickel Improvement Project, King County, Washington
Area of Potential Effects (APE)

Dear Dr. Brooks:

The Washington State Department of Transportation (WSDOT), on behalf of Federal Highway Administration (FHWA), is preparing an Environmental Assessment (EA) to document the environmental consequences and possible mitigation measures for the I-405 Bellevue Nickel Improvement Project.

Pursuant to compliance with Section 106 of the National Historic Preservation Act (NHPA), we are hereby initiating consultation with your office. Enclosed please find a map that describes the proposed Area of Potential Effect (APE) for this project. We invite you to comment on this APE.

Project Description

The I-405 Bellevue Nickel Improvement Project extends along I-405 from the I-90 interchange to Southeast 8th Street in Bellevue. The project compliments the Bellevue Access project currently under construction in the downtown area. Highway improvements being studied include:

- One new northbound lane between I-90 and Southeast 8th Street and one new southbound lane between Northeast 4th Street and I-90. These will be constructed on the median side of the existing roadway.
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- Two bridges will also be widened: one in the northbound direction over the Burlington Northern Santa Fe railroad, and one in the southbound direction over SE 8th Street.

Proposed Area of Potential Effect (APE)

The cultural resources APE for the Bellevue Nickel Improvement Project was determined by a windshield survey of the project area, which involved driving along I-405 and on surface roads adjacent to the project. The goal of the windshield survey was to determine the extent to which the project has the potential to affect historic properties. Following 36CFR800.16, a potential "effect" is viewed as an alteration to the characteristics of a property that make it eligible for the National Register of Historic Places. Such alterations can be direct and indirect. Direct effects

include physical alteration, displacement, or destruction of a historic property. Indirect effects include those likely to affect the property through significant changes to the character of the viewshed, noise increase, and/or significant vibration increase.

The Bellevue Nickel Improvement Project APE includes approximately one legal property on either side of the I-405 right-of-way. This is consistent with the Areas of Potential Effect for the I-405 Kirkland and South Renton Nickel Projects, which have been reviewed by your office. The proposed APE for this project reflects the extent to which the property has the potential to affect historic properties indirectly. The project will only directly affect historic properties that are within the footprint of the project. Other effects, if any, will be indirect.

There is also a proposed wetland mitigation area near Kelsey Creek just east of the right of way. Proposed mitigation would affect approximately two acres of this site.

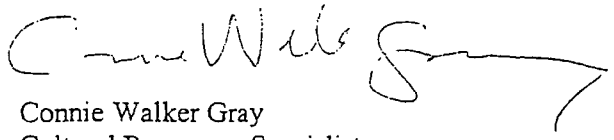
Direct effects will most likely be limited to unknown archaeological resources. The areas most likely to contain archaeological resources that have not previously been destroyed by roadway construction include proposed stormwater detention ponds, proposed wetlands mitigation areas, and the area where the new tunnel will be excavated.

All historic buildings, structures, sites, and objects within the APE constructed in or prior to 1960 will be documented. Electronic copies of Historic Property Inventory Forms using the Historic Property Inventory Database will be prepared for all properties that have not been surveyed within the last five years. Any properties surveyed within the last five years will be re-photographed and checked in the field to verify condition and integrity. Inventory forms will be updated as necessary. If encountered, archaeological sites will be recorded on OAHP Site Forms.

Paul Krueger, I-405 Bellevue Nickel Improvement Project Environmental Manager, initiated consultation with the Snoqualmie, Yakama, Duwamish, and Muckleshoot Tribes in letters dated March 24, 2005. To date, we have not received any comments on cultural resources from the affected Tribes. Letters dated May 9, 2005 solicit concurrence on the proposed APE for this project. We will continue to consult with the tribes throughout the duration of this project, and will forward any correspondence or comments from concerned tribes to your office.

We request your comments on the APE by June 9, 2005. Please contact me at 206.464.1236, email grayc@wsdot.wa.gov, or Allison Ray, Environmental Manger, at 425.456.8610, email rayalli@wsdot.wa.gov, if you have any questions or comments regarding the I-405 Bellevue Nickel Improvement Project.

Sincerely,



Connie Walker Gray
Cultural Resources Specialist

Enclosures

cc: Allison Ray, WSDOT
Jim Leonard, Federal Highway Administration
Brad Bowden, Historical Research Associates (HRA)

STATE OF WASHINGTON

Office of Archaeology and Historic Preservation

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501
(Mailing Address) PO Box 48343 • Olympia, Washington 98504-8343
(360) 586-3065 Fax Number (360) 586-3067

May 25, 2005

Ms. Connie Walker Gray
Cultural Resource Specialist
Washington State Department of Transportation
Northwest Washington Division
Urban Corridors Office
401 Second Avenue South, Suite 560
Seattle, Washington 98104-3850

In future correspondence please refer to:
Log: 052505-07-FHWA
Property: I-405 Bellevue Nickel
Re: APE Comments

Dear Ms. Walker Gray:

We have reviewed the materials forwarded to our office for the above referenced project. Thank you for your description of the area of potential effect for the project. We concur with the definition of the APE. We look forward to the results of your cultural resources survey efforts, your consultation with the concerned tribes, and receiving the survey report. We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4) and the survey report when it is available.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised. Please note that as of July 1, 2005, OAHP will be requiring the use of OAHP Archaeology Site Forms for all archaeological survey projects. OAHP requires that all historic property inventory forms provided to our office be submitted in an electronic version using the Historic Property Inventory Database. If you have not registered for a copy of the database, please log onto our website and go to the Survey/Inventory page for more information and a registration form.

Sincerely,

Russell Holter
Project Compliance Reviewer
(360) 586-3533
russellh@cted.wa.gov

December 12 2005

Allyson Brooks, Ph.D.
State Historic Preservation Officer
Department of Archaeology and Historic Preservation
1063 S. Capital Way, Suite 106
Olympia, WA 98504-8343

RE: I-405 Bellevue Nickel Improvement Project (Cultural Discipline Report), King County Log # 052505-07-FHWA

Dear Dr. Brooks,

Per provisions of 36CFR800, we are continuing consultation for the above project. Enclosed please find a copy of the Cultural Resource Discipline Report (dated November 2005), which summarizes the cultural resources assessment conducted by Historical Research Associates, Inc. (HRA) for the above project. The Area of Potential Effect (APE) for this project includes all areas of ground disturbance—including demolition, construction, staging, equipment storage locations, stormwater management facilities, and wetland and stream mitigation sites—as well as one additional parcel on either side of the I-405 corridor outside of the ground disturbance area. Investigations included primary and secondary source background research, reconnaissance survey, subsurface archaeological investigations, and recordation of all historic resources 50 years old and older.

As noted in the report, HRA encountered no archaeological resources as a result of this investigation. HRA did identify the Washington Historic Register (WHR)-listed and National Register of Historic Preservation (NRHP)-eligible Wilburton Trestle (45KI242) within the APE. Only a small portion of the trestle is within the APE, and this portion will not be directly or indirectly affected by this project. The project will actually result in the I-405 footprint moving further away from the Wilburton Trestle.

Further, HRA historians identified a previously unrecorded historic district—Norwood Village—along the east side of the project area. Norwood Village is a post-WWII suburban development designed by prominent local architecture firms of Bassetti and Morse and Chairelli and Kirk. It is eligible for listing in the National Register under Criterion C for possessing distinctive design characteristics. Eight houses within this neighborhood are within the APE, and have been recorded on the DAHP historic property inventory database (CD enclosed) as part of this study. The I-405 Bellevue Nickel Improvement Project will have no direct or indirect effect on the district. As described in the Discipline Report, a noise study was conducted at ten separate

locations within and immediately adjacent to Norwood Village. The results of the noise study show that current and anticipated noise levels in Norwood Village are within the acceptable range.

In summary, although historic or potentially historic properties are located within the APE, there will be no effect to these properties as a result of this undertaking.

I look forward to your concurrence with our determinations of NRHP-eligibility for the Wilburton Trestle and Norwood Village and of our determination of no historic properties affected for this project. We request that your comments be sent to use by no later than January 17, 2006. If you have concerns regarding the project, please contact Allison Ray, the I-405 Environmental Manager at 425-456-8610 or me at 205-464-1236. Thank you for your interest in the project.

Sincerely,

Connie Walker Gray
WSDOT Cultural Resources Specialist

Enclosure

cc: Jim Leonard, FHWA
Allison Ray, WSDOT – I-405 Environmental Manager
Sandie Turner, WSDOT
Matthew Sterner, DAHP

STATE OF WASHINGTON

DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501
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(360) 586-3065 • Fax Number (360) 586-3067 • Website: www.dahp.wa.gov

December 22, 2005

Ms. Connie Walker Gray
Cultural Resource Specialist
Washington State Department of Transportation
Northwest Washington Division
Urban Corridors Office
401 Second Avenue South, Suite 560
Seattle, Washington 98104-3850

In future correspondence please refer to:
Log: 052505-07-FHWA
Property: I-405 Bellevue Nickel
Re: Archaeology - No Historic Properties

Dear Ms. Walker Gray:

Thank you for contacting our office and providing a copy of the cultural resources survey. We concur with their professional recommendations and your finding of No Historic Properties Effected.

Regarding your determinations regarding National Register of Historic Places (NRHP) eligibility of those historic properties that fall within the project APE, we comment as follows:

- we concur that the Wilburton Trestle is eligible for listing on the NRHP,
- we concur that Norwood Village is eligible for listing on the NRHP as a district,
- we concur that 12109 SE 27th St, 12103 SE 27th St, 12103 SE 26th St, 12101 SE 26th St, 2601 121st Ave SE, and 2535 121st Ave SE are not individually eligible for listing on the NRHP but represent contributing elements to the Norwood Village Historic District,
- we do not concur that 12115 SE 27th St and 12117 SE 26th St are not individually eligible for listing on the NRHP but represent contributing elements to the Norwood Village Historic District. We believe that these properties are neither individually eligible nor contributing elements to the Norwood Village Historic District.

Overall, the report is clear and comprehensive. We have only a few suggestions to improve the document. Please include a cover page for Appendix A. Add the Wilburton Trestle to the list of resources table in Appendix D. On each of the inventory forms for those properties that fall within Norwood Village (as listed in Appendix D), each resource is listed as not contributing to a potential historic property. Please revisit these entries and make them reflect recommendations presented in the resources table for the appendix. A Historic Inventory form should not be completed for the Norwood Village at the district level. Presentation of forms for each individual property is sufficient.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

These comments are based on the information available at the time of this review and on the behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36CFR800.

Should additional information become available, our assessment may be revised. In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity must stop, the area secured, and this office and the concerned tribes notified.

Sincerely,

Matthew Sterner, M.A., RPA
Transportation Archaeologist
(360) 586-3082
matthew.sterner@dahp.wa.gov

Pat S.

INTERSTATE 405 Corridor Program
Congestion Relief & Bus Rapid Transit Projects

600 – 108th Avenue NE, Suite 405
Bellevue, WA 98004
Main 425-456-8500
Fax 425-456-8600

December 5, 2005

Kim Becklund
City of Bellevue
Transportation Division 301 116th Avenue SE, Suite 100
Bellevue, WA 98004

Re: Bellevue Nickel Improvement Project Wetland Mitigation at Kelsey Creek Park

Dear Ms. Becklund:

WSDOT appreciates that the City of Bellevue, including Bellevue Parks and Recreation, has provided a site for wetland mitigation for the I-405 Bellevue Nickel Improvement Project. The intent of this letter is to 1) document our intent to use the City property for the I-405 wetland mitigation site, 2) outline commitments WSDOT will make and information we will need from the City, and 3) propose how WSDOT and the City can proceed with finalizing a terms agreement.

Construction on the Bellevue Nickel Improvement Project will result in unavoidable effects to I-405 right-of-way wetlands in Median Creek. WSDOT will mitigate for the unavoidable effects through compensatory mitigation at an offsite location. The wetland creation area will be located within the Kelsey Creek Park, immediately north of the intersection of Richards Road and the Lake Hills Connector. The land is owned by the City of Bellevue and managed by its Parks Department. The creation of the wetland mitigation site will be used solely to mitigate for wetland impacts from WSDOT's I-405 transportation projects that occur within the Bellevue city limits.

The Kelsey Creek wetland complex currently surrounds the proposed wetland creation site on the north, east, and west. The mitigation site, approximately 3.6 acres, is an apparent historic fill site which appears to have been filled prior to the enactment of federal, state, or local wetland regulations. The depth of fill appears to range between one and eight feet, with the deepest fill occurring along Lake Hills Connector. Non-native pasture grasses and shrubs primarily dominate the fill area. Small, forested patches occur along the roadway near the western and eastern extents of the proposed wetland creation area. There are no existing structures on site.

WSDOT has secured full funding for the I-405 Bellevue Nickel Improvement Project which includes the construction of the mitigation site. The proposed work at the mitigation site will remove fill from the site and enhance wetland functions that are consistent with the Park. The construction of the mitigation site will use the design-build method of contracting.

WSDOT is currently developing a Wetland Mitigation Plan. This plan will be designed to allow for applicable wetland permitting and will include a maintenance and monitoring program. The plan will provide information on the following:

- Project Description, including mitigation approach and wetland summary (wetland descriptions and impact summary),
- Proposed Compensatory Mitigation (mitigation site evaluation, mitigation ratios, site-specific mitigation goals),
- Mitigation Area Background Information,
- Mitigation Strategy, and
- Construction and Planting Schedules.

WSDOT will provide annual reports to the City. The annual report will include progress on the baseline conditions, field pictures of the mitigation site, success rates of planting, and documentation of any invasive vegetation on site.

WSDOT will need the following from the City to ensure success of the establishment of the wetland mitigation site:

- Grant and convey to WSDOT right of entry on the property for the purpose of constructing and maintaining a wetland mitigation site through the "establishment" period;
- Confirm that no City of Bellevue permits are required for the wetland mitigation site; and
- Agree to a deed restriction or protection easement to protect this site in perpetuity.

WSDOT may need other information from the City as we proceed with the project.

In previous discussions, we have talked about incorporating the Newcastle Beach Project and Kelsey Creek mitigation site into one Memorandum of Agreement between WSDOT and the City of Bellevue. Since the mitigation site is farther into development than the Newcastle Beach Project, I would recommend that we immediately begin working on the terms agreement for the mitigation site. When WSDOT and the City have reached agreement on the concept plan for Newcastle, we could then create specific terms for that project. Ideally, we would include the terms for both projects into one Memorandum of Agreement that works with both project's schedules. However, we may be in a position to finalize terms on the wetland mitigation site before we can do so for the Newcastle Beach Project.

This mitigation site will provide many environmental benefits to both our project and the City of Bellevue. WSDOT looks forward to continued opportunities for partnering on environmental mitigation projects. If you have any questions or comments regarding the approach we have laid out for the terms agreement, please let me know by December 18, 2005 so that we are able to maintain the project's schedule.

Thank you for all of your help in making this project a win-win environmental improvement. I look forward to finalizing the design with you and your staff.

Sincerely,

Allison Ray, Environmental Manager
WSDOT, I-405 Project
425-456-8610
rayalli@wsdot.wa.gov

cc: Denise Cieri
Chad Durand
Robin Sterry
Pat Svoboda

City of Bellevue
Post Office Box 90012 • Bellevue, Washington • 98009 9012

January 20, 2006

Ms. Allison Ray, I-405 Environmental Manager
Washington State Department of Transportation, I-405 Project Team
600 108th Avenue NE, Suite 405
Bellevue, WA 98004

Re: Kelsey Creek I-405 Environmental Mitigation Project

Dear Ms. Ray:

We are writing to express our continued support for the rapid implementation of the I-405 Corridor's highway expansion project through the state's 2003 Nickel Improvement Program. We support ongoing collaboration on a number of significant and mutually beneficial mitigation projects necessary to I-405's success. We are committed to working with you and your team to further develop mitigation strategies on Bellevue public lands that will ultimately require our Council's authorization in February or March 2006. Close coordination is key as we strive to expedite traffic improvements, while at the same protecting aquatic habitats.

With regard to near-term mitigation requirements, the City of Bellevue acknowledges that WSDOT proposes to use a portion of Kelsey Creek Park near the intersection of Lake Hills Connector and Richards Road to construct more than two acres of wetlands for mitigation of wetland effects due to the I-405 Bellevue Nickel Improvement Project. The City will work with WSDOT to finalize plans for the wetland mitigation site after receiving City Council approval.

Sincerely,

Goran G. Sparrman, Transportation Director
City of Bellevue

Dennis Vidmar, Acting Utilities Director
City of Bellevue

Cc: Steve Sarkozy, Bellevue City Manager
Diane Carlson, Intergovernmental Relations Director, City of Bellevue
Patrick Foran, Bellevue Parks Director
Sheida Sahandy, Environmental Counsel, City of Bellevue
David Berg, Capital Programs Director, City of Bellevue Transportation
Kit Paulsen, Environmental Scientist, City of Bellevue Utilities
Kim Becklund, Transportation Policy Advisor, City of Bellevue Transportation